**United States General Accounting Office** 

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Report to the Chairman, Committee on Commerce, and the Chairman, Committee on Education and the Workforce, House of Representatives

**August 1999** 

# TELECOMMUNICATIONS TECHNOLOGY

# Federal Funding for Schools and Libraries







United States General Accounting Office Washington, D.C. 20548

Health, Education, and Human Services Division

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The Honorable Tom Bliley Chairman, Committee on Commerce House of Representatives

The Honorable William F. Goodling Chairman, Committee on Education and the Workforce House of Representatives

The nation's schools and libraries face a large bill for acquiring telecommunications and information technology. A 1996 study by the RAND Corporation estimated that providing a "technology-rich" learning environment in every school would cost \$10 billion to \$20 billion per year. Another organization has estimated that U.S. schools are already spending more than \$5 billion a year on such efforts. In recent years, the Congress has provided increasing support, through a number of programs, for school and library efforts to acquire information technology, including computer hardware and software, wiring, Internet access, and teacher training. As the number of federal programs providing such aid has risen, questions have been raised about the potential for duplication, which can waste scarce funds, confuse and frustrate program customers, and limit overall program effectiveness.

You asked that we review federally created or facilitated programs for helping schools and libraries with their telecommunications and information technology efforts. In September 1998, we testified before your Committees on the work we had conducted up to that time.<sup>3</sup> As agreed with your offices, we have continued our work to compile a more complete response. The specific questions you asked us to address are shown in table 1. We are presenting brief answers to these questions in the body of this report and more detail in the appendixes.

<sup>&</sup>lt;sup>1</sup>Thomas K. Glennan and Arthur Melmed, Fostering the Use of Educational Technology: Elements of a National Strategy (Santa Monica, Calif.: RAND Corporation, 1996).

<sup>&</sup>lt;sup>2</sup>Quality Education Data, 1997-98 Technology Purchasing Forecast (Denver, Colo.: 1997).

<sup>&</sup>lt;sup>3</sup>Telecommunications and Information Technology: Federal Programs That Can Be Used to Fund Technology for Schools and Libraries (GAO/T-HEHS-98-246, Sept. 16, 1998).

### Table 1: Research Questions Addressed in This Report

Tonic	Specific question
Program characteristics	What are the characteristics of each program created or facilitated by the federal government that can be used to provide federal and private (such as the E-rate <sup>a</sup> program) funding for public and private K - 12 schools and libraries for telecommunications services, internal connections, information services, computer hardware, computer software, other related technologies, and teacher training, including
	—the administrative costs, measured in dollars and as a percentage of overall program funding for fiscal year 1998 (where available by program at the federal level); —the number of federal and nonfederal full-time equivalents (FTE) allocated to each program by function; —the procedures that are used to award funds; —the total funding available for fiscal years 1996, 1997, and 1998; and —the actual funding levels for technology for fiscal years 1996, 1997, and 1998?
Potential for duplication	What is the potential for duplication of programs for K - 12 schools and libraries as seen in the targeted activities and recipients of each program?
Coordination efforts	What efforts have been made to coordinate federal education and technology programs? Specifically,
	—What are the missions, activities, and staffing levels of the Department of Education (Education) Office of Educational Technology (OET) and the White House Office of Science and Technology Policy (OSTP)?  —What efforts are being made by these offices to coordinate federal education and technology programs?  —How can the Government Performance and Results Act (the Results Act) be used to coordinate and reduce duplication in these programs?
Available information on fraud, waste, and abuse	What information, if any, is available about each program's potential problems regarding fraud, waste, abuse, and efforts to eliminate the problems?

<sup>a</sup>The Federal Communications Commission's universal service fund—known as the E-rate—provides discounts of 20 to 90 percent on telecommunications services, Internet access, and internal connections to eligible schools and libraries. The program is funded by mandatory contributions from interstate telecommunications and other service providers. The first discounts were funded for the 18-month period beginning January 1998.

# **Background**

Policymakers at the federal, state, and local levels have increasingly recognized that technology is becoming a central component of many jobs, changing the skills and knowledge needed to be successful in the workplace. The concern about the academic competitiveness of U.S.

students, coupled with these changes in needed work skills, has heightened interest in integrating technology into the elementary and secondary curriculum in an effort to address both sets of needs. Schools have used a variety of funding sources to establish and support their technology programs. Some rely on state funding, while others use local tax moneys. Some private funding is also available, and federal funding sources also play a role in supporting technology. Our 1998 report on five school districts found that each used a combination of sources to fund its technology program.<sup>4</sup>

In our previous work we determined that multiple federal agencies provide funds that schools or libraries can use to obtain technology. When more than one federal agency is involved in the same broad area of national need, this is referred to as mission fragmentation. While mission fragmentation and program overlap are relatively straightforward to identify, determining whether overlapping programs are actually duplicative requires an analysis of program goals, the means to achieve them, and the targeted recipients. This kind of analysis is consistent with the Government Performance and Results Act of 1993.<sup>5</sup>

### Results in Brief

To respond to your request, we examined four areas, with the following results:

• **Program characteristics**. We identified 35 federal programs in 8 agencies that could be used as a source of support for telecommunications and information technology by libraries or elementary and secondary schools in fiscal year 1998. Ten programs specifically targeted technology, while the remaining 25 included technology as one of many possible uses of funds. The 10 technology-targeted programs provided about \$650 million in fiscal year 1998 and about \$1.7 billion in discounts from the universal service fund for January 1998 to June 1999; in 1997, they provided about \$343 million; in 1996, about \$102 million. For the 25 programs not primarily targeted to technology, expenditures for technology cannot be precisely determined because programs do not track how much they spend specifically for technology, according to program officials.

<sup>&</sup>lt;sup>4</sup>School Technology: Five School Districts' Experiences in Funding Technology Programs (GAO/HEHS-98-35, Jan. 29, 1998).

<sup>&</sup>lt;sup>5</sup>Managing for Results: Using the Results Act to Address Mission Fragmentation and Program Overlap (GAO/AIMD-97-146, Aug. 29,1997); and Managing for Results: An Agenda to Improve the Usefulness of Agencies' Annual Performance Plans (GAO/GGD/AIMD-98-228, Sept. 8, 1998).

<sup>&</sup>lt;sup>6</sup>Nine of these programs were operating in 1997, eight in 1996.

However, 9 of the 25 programs not targeted to technology were able to provide estimates totaling about \$108 million for technology in 1998. In addition to the nine programs that provided estimates, a recent report on Education's Title I program estimates that in 1997, about \$240 million of the \$7.3 billion in Title I funding was spent on technology. Also, in previous work we estimated that for Education's Goals 2000 program in 1997, about \$43 million of nearly \$471 million was spent on technology.<sup>8</sup> With respect to funding award procedures, 22 programs use a competitive process, while 12 distribute funding on the basis of formulas and 1 program uses both methods. 9 Estimates of administrative expenses for the 35 programs in fiscal year 1998 ranged from less than 1 percent to 15 percent and estimates of the number of federal and nonfederal FTE positions established to administer the programs ranged from less than 1 to nearly 200, 10 depending on the program. Because program characteristics differ, administrative costs could vary significantly across programs. For example, programs that distribute funding through a competitive process may have proportionately higher administrative costs than those that distribute funding through a formula because they must carry out a grant proposal selection process that may include outside reviewers to read and score grant applications. Appendix I presents more detailed information on these program characteristics.

Potential for duplication. Funding aimed at enhancing telecommunications and information technology in schools and libraries can be delivered through 35 separate federal programs administered by 8 different agencies. While multiple agencies have responsibilities for managing programs in this area, based on our review, we did not identify instances where two individual programs were providing identical services to identical populations—that is, had the same goals, the same activities or strategies to achieve them, and the same targeted recipients. Programs typically shared some characteristics and differed in others. An example of two programs that share similar strategies—distance learning technologies—but differ in their goals and targeted recipients is

<sup>&</sup>lt;sup>7</sup>U.S. Department of Education, <u>Promising Results</u>, <u>Continuing Challenges: The Final Report of the National Assessment of Title I (1999)</u>.

<sup>&</sup>lt;sup>8</sup>Goals 2000: Flexible Funding Supports State and Local Education Reform (GAO/HEHS-99-10, Nov. 1998).

<sup>&</sup>lt;sup>9</sup>The Institute of Museum and Library Service's Native American Library Services Grants program provides competitive grant funding through its Enhancement grants and formula grant funding through its Basic Library Services and Technical Assistance grants.

<sup>&</sup>lt;sup>10</sup>The Schools and Libraries Division of the Universal Service Administrative Company contracts for customer support and application processing for the E-rate. The contractor reported that it used 199.6 FTEs in fiscal year 1998.

Education's Star Schools and the Department of Agriculture's Distance Learning and Telemedicine grants. The Star Schools program's goal is to improve instruction for elementary and secondary students in underserved areas. In contrast, Distance Learning and Telemedicine grants are intended to enhance health care and learning opportunities for all individuals living in rural areas. Our analysis of the potential for duplication among the 35 programs relied on agency program documents and interviews with agency officials—we did not examine the implementation of each program or individual grantee awards. Appendix II provides a more detailed discussion of our comparisons of the programs and the factors that affect the potential for duplication.

- **Coordination efforts.** While focusing their efforts in different ways, both Education's OET and the White House OSTP have worked to coordinate federal education technology programs. OET's mission is to create policy and provide oversight for technology issues within Education and to participate in coordination activities and policy initiatives associated with education technology across the federal government and within the education community. For example, OET worked with the American Institutes for Research and the states to develop an educator's guide for evaluating the use of technology in schools and classrooms. In contrast, OSTP focuses on broad national science and technology goals, and facilitates the development and implementation of federal policies associated with these goals, including coordinating interagency efforts to develop and implement technology policies, programs, and budgets. For example, OSTP was involved in discussions with Education officials when the Technology Literacy Challenge Fund was being developed. Once the legislation was passed, implementation of the program and coordination with other involved parties were the responsibilities of Education and OSTP was no longer involved with the program on a day-to-day basis, according to an OSTP associate director. In addition, the Results Act can be used to coordinate technology efforts and reduce duplication by providing the structure needed to study programs' goals, the activities and strategies used to achieve them, and their targeted recipients. Appendix III provides more detail on the coordination efforts of these two offices.
- Available information on fraud, waste, and abuse. Reports from agency offices of the inspector general (OIG) are one source of information on potential problems of fraud, waste, and abuse. Based on our review of 17 of these reports, we did not identify information that indicates that fraud, waste, and abuse are systemic or widespread problems. However, some reports contain examples of such problems for individual grantees. Ten of the 17 reports concerned Commerce's Telecommunications and Information Infrastructure Assistance Program (TIIAP). However, officials

from the Department of Commerce's OIG recently testified before the Congress that these audits did not identify any major or systemic problems. Of the remaining seven reports, only two had significant findings regarding questioned costs or unapproved spending. Each of these two reports addresses an individual grant project—an Education Star Schools grant and a Commerce Public Telecommunications Facilities Program grant. Both agencies report taking actions to protect against such problems occurring in the future. Appendix IV presents—for each of the 17 reports—more detailed information on the findings, recommendations, and agency efforts to eliminate problems.

## Scope and Methodology

To identify programs, we reviewed the Catalog of Federal Domestic Assistance (CFDA), 11 Education documents, Congressional Research Service publications, and our previous work. To obtain more detailed information about the characteristics of each program, we conducted interviews with program officials and reviewed pertinent documents such as program application packages, regulations, and budget information. We did not independently verify the information we obtained from officials on administrative costs, numbers of FTES, and the percentage of funding used for technology, and we have not used that information as support for findings or recommendations in this report. To assess the potential for duplication among the programs, we developed a framework based on standards set out in the Results Act and used it to analyze data we had gathered on program goals, activities, and targeted recipients. We limited our analysis to information provided in agency documents and by agency officials and did not examine the implementation of each program or individual grantees. To determine existing efforts to coordinate funding sources across program and agency lines, we conducted interviews with officials from Education's OET and the White House OSTP and reviewed agency documents including reports and performance plans. To identify available information on potential fraud, waste, and abuse and efforts to eliminate them, we interviewed program officials and officials from agencies' OIGs and reviewed OIG audit and investigations reports and semiannual reports to the Congress. We included reports and studies issued from October 1995 to March 1999. Additionally, we held discussions with Education officials in the Offices of the General Council and the Chief Financial Officer; we did not examine individual grantees. We

<sup>&</sup>lt;sup>11</sup>The CFDA is a governmentwide compendium of federal programs, projects, services, and activities that provide assistance and benefits. Coordinated by the Office of Management and Budget (OMB) and compiled by the General Services Administration, the CFDA contains information, both financial and nonfinancial, about programs administered by federal departments and agencies.

conducted our work from August 1998 to May 1999 in accordance with generally accepted government auditing standards.

### **Agency Comments**

We provided a draft of this report to Education, Commerce, and the Federal Communications Commission (FCC). We provided relevant portions of the draft report to Agriculture, the National Institutes of Health (NIH), the National Science Foundation (NSF), the Institute of Museum and Library Services (IMLS), the National Endowment for the Humanities (NEH), and the White House OSTP.

In its comments, Education suggested that we expand our discussion about mission fragmentation to capture broader program design issues. It pointed out that, in previous GAO work on the Results Act, we have said that multiple programs providing the same or similar services can be beneficial if it occurs by design as part of a management strategy. While we focus our discussion in this report on duplication of program goals, activities, and targeted recipients, a more detailed discussion about duplication in general can be found in Managing for Results: Using the Results Act to Address Mission Fragmentation and Program Overlap (GAO/AIMD-97-146, Aug. 29, 1997). Education also expressed concerns about our discussion of OSTP, Education, and NSF and their roles in the Interagency Education Research Initiative. It said that readers could get the impression that the interaction between NSF and Education is new and that NSF has not been willing to provide such information. We revised the wording for clarification.

Commerce, Agriculture, and NEH expressed concerns about the potential for misinterpretation of administrative cost information. Commerce said that comparison of administrative costs across programs is unfair and would not be meaningful because (1) program administrative costs are dependent upon the nature of the program and (2) the range of activities included under administrative costs varies from program to program. To address these concerns, we revised the report to alert the reader that differences in program characteristics can cause differences in administrative costs. Commerce also expressed concerns that our reporting on the number of reports dealing with fraud, waste, and abuse was potentially misleading because Commerce's OIG issued a report for each grant audited while other agencies' OIGs issued reports that combine audits of multiple grants. Commerce pointed out that the 10 reports on a single Commerce program were not comparable to the 7 reports on other programs. We did not base our conclusions on the number of reports. We

focused instead on whether the reports had identified major or systemic problems. In addition, we stated that Commerce OIG officials had reported that none of the studies identified major or systemic problems. NEH emphasized that their programs do not provide funding to acquire information technology per se, but rather to support projects and programs that help teachers access and use humanities materials in digital form. However, we included in our list of programs that can fund technology those that train teachers to integrate technology into the school curriculum. Comments from the Departments of Agriculture, Commerce, and Education and the National Endowment for the Humanities appear in appendixes V through VIII.

The FCC, OSTP, IMLS, Education, Agriculture, Commerce, and NEH provided technical comments, which we addressed as appropriate. NIH and NSF did not provide comments on the report.

We are sending copies of this report to the Honorable Richard W. Riley, Secretary of Education, and the heads of the other agencies responsible for information technology programs. We will also make copies available to others upon request.

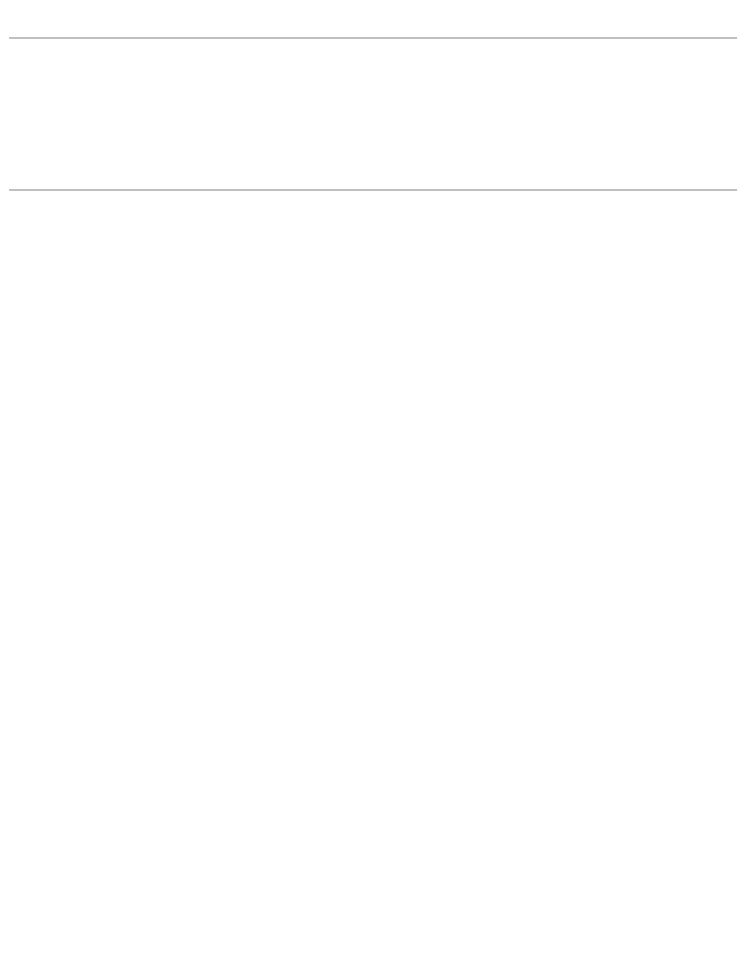
If you have any questions regarding this report, please contact me on (202) 512-7014 or Nancy Purvine on (206) 287-4800. Other contributors to this report are Lise Levie, Susan Lawless, and Stan Stenersen.

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**Income Security Issues** 



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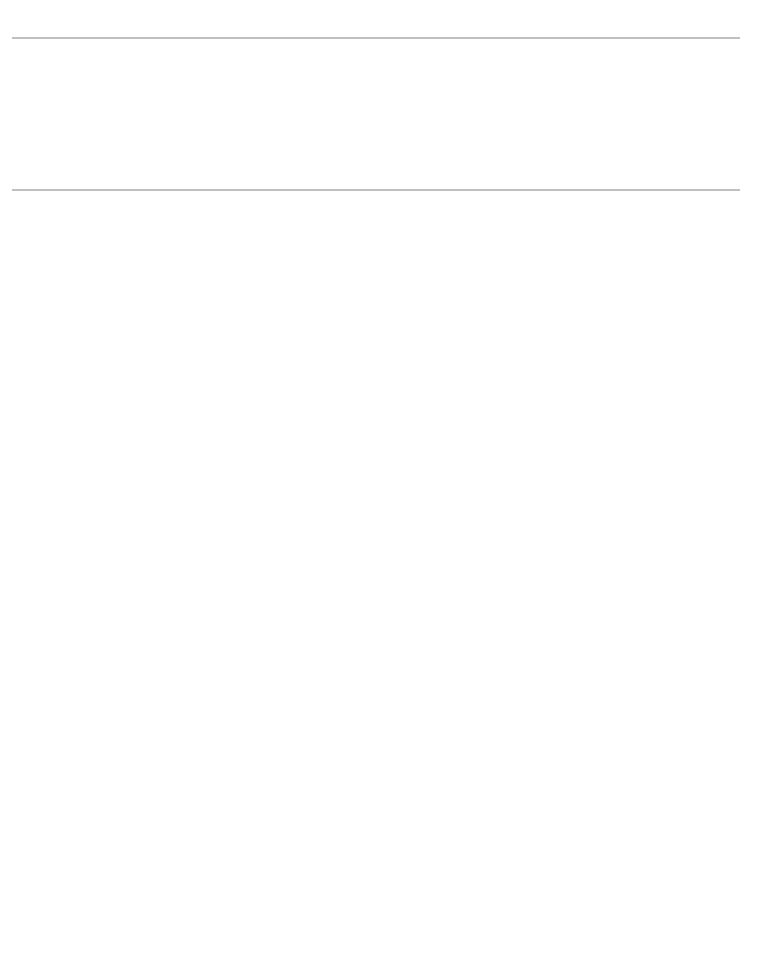
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### **Abbreviations**

AIR	American Institutes for Research
CFDA	Catalog of Federal Domestic Assistance
FCC	Federal Communications Commission
FTE	full-time equivalent
IERI	Interagency Education Research Initiative
IMLS	Institute of Museum and Library Services
LEA	local education agency
NEH	National Endowment for the Humanities
NIH	National Institutes of Health
NSF	National Science Foundation
NTIA	National Telecommunications and Information
	Administration
NSTC	National Science and Technology Council
OBEMLA	Office of Bilingual Education and Minority Language Affairs
OEAM	Department of Commerce Office of Executive Assistance
	Management
OET	Department of Education, Office of Educational Technology
OIG	Office of the Inspector General
OMB	Office of Management and Budget
OSTP	White House Office of Science and Technology Policy
PTFP	Public Telecommunications Facilities Program
SEA	state education agency
SLD	Schools and Libraries Division
TIIAP	Telecommunications and Information Infrastructure
	Assistance Program
USAC	Universal Service Administrative Company
	• •



# **Program Characteristics**

What are the characteristics of each program created or facilitated by the federal government that can be used to provide federal and private (such as the E-rate program) funding for public and private K - 12 schools and libraries for telecommunications services, internal connections, information services, computer hardware, computer software, other related technologies, and teacher training, including

- the administrative costs, measured in dollars and as a percentage of overall program funding for fiscal year 1998 (where available by program at the federal level);
- the number of federal and nonfederal ftes allocated to each program by function;
- the procedures that are used to award funds;
- the total funding available for fiscal years 1996, 1997, and 1998; and
- the actual funding levels for technology for fiscal years 1996, 1997, and 1998?

### Characteristics for 35 Programs That Can Fund Technology

Table I.1 shows, for fiscal year 1998, the estimated program administrative costs, the estimated federal administrative costs as a percentage of total program costs, 12 and total program funding. Administrative costs may vary among programs because some distribute funding through a competitive process and some through a formula. The competitive grant process involves reviewing and scoring grant applications as part of selection procedures, while the formula grant process does not. Additionally, the cost of this review process can vary widely for a number of reasons. The number of grant applications to be reviewed varied among the programs in our study and, while most competitive grant programs hired outside experts to perform this task, one program used volunteers and one used only agency staff. Further, the Department of Education considered the cost of these reviewers a program expense and other agencies considered reviewers an administrative expense.

Table I.2 shows estimates of the total number of federal full-time-equivalent (FTE) staff for each program, the number of FTES assigned to technology activities, the portion of total FTES allocated to implementing and awarding grants, and the portion allocated to oversight. Table I.2 also shows estimates of the portion of total FTES that are professional staff and the portion that are support staff. Regarding nonfederal or contract FTES, just three programs reported contracting for

 $<sup>^{12}\</sup>mbox{We}$  define total program costs as program funding plus program administrative costs, which could either come from the program funds or the department's administrative budget.

activities in addition to hiring grant readers during the competitive grant selection process. The Universal Service Administrative Company<sup>13</sup> (USAC) contracts for E-rate customer support and application processing (199.6 FTES). The Department of Commerce's Telecommunications and Information Infrastructure Assistance Program (THAP) and Public Telecommunications Facilities Program (PTFP) contract for data system redesign, professional consultants, and temporary administrative support, but do not track the number of FTES under these contracts. In addition, USAC's Schools and Libraries Division (SLD) employs about 15 FTES for a variety of activities associated with E-rate administration including outreach and education, office management, and technology planning.

Table I.3 shows which programs award funding through a competitive process and which award funding using a formula. Table I.4 shows program funding, estimates of the amount spent on technology, and the estimated percentage of program funding spent on technology for fiscal years 1996 through 1998.

Table I.1: Fiscal Year	1998 Administrative Cost Estimates by Program for Programs That Could Fund Technology for
<b>Schools or Libraries</b>	

Programs	1998 estimated program administrative costs <sup>a</sup> (in thousands of dollars)	Federal administrative costs as a percentage of total program costs <sup>b</sup>	1998 program funding <sup>c</sup> (in thousands of dollars)	
Programs that target technology				
Department of Education				
Special Education Technology and Media Services for Individuals With Disabilities	\$786	2.3	\$34,023	
Star Schools	1,175	3.3	34,000	
Technology Innovation Challenge Grants	740	0.7	106,000	
Technology Literacy Challenge Fund	71	<0.1	425,000	
Department of Agriculture				
Distance Learning and Telemedicine Grants	2,010	13.9	12,500	

<sup>&</sup>lt;sup>13</sup>USAC is a private, not-for-profit organization that administers the universal service fund for the Federal Communications Commission (FCC). The universal service fund was established to provide residential customers with affordable access to basic telephone service.

Programs	1998 estimated program administrative costs <sup>a</sup> (in thousands of dollars)	Federal administrative costs as a percentage of total program costs <sup>b</sup>	1998 program funding <sup>c</sup> (in thousands of dollars)
Department of Commerce	·	<u> </u>	<u> </u>
Public Telecommunications Facilities Program	1,823 (included in program funding)	8.4	21,767
Telecommunications and Information Infrastructure Assistance Program	3,271 (included in program funding)	15.0	21,782
<b>Federal Communications Commission</b>			
Universal Service Discount for Schools and Libraries (E-rate) <sup>d</sup>	26,909 <sup>e</sup>	2.4 <sup>f</sup>	1,108,982 <sup>f</sup> in discounts for the 12 mos. beginning 1/1/98
National Institutes of Health			
Information Systems and Grants	97	5.9	1,550
National Science Foundation			
Connections to the Internet	4	2.6	147
Programs that do not target technology			
Department of Education			
Alaska Native Student Enrichment Program	35	3.7	905
Bilingual Education Capacity and Demonstration Grants	1,996	1.2	160,000
Emergency Immigrant Education Assistance Program	25	0.02	150,000
Foreign Language Assistance	102	2.0	5,000
Eisenhower Professional Development Federal Activities	752	3.1	23,300
Eisenhower Professional Development State Grants	1,788	0.5	335,000
Fund for the Improvement of Education	588	0.5	108,100
Goals 2000 State and Local Education Systemic Improvement Grants	1,590	0.3	466,000
Javits Gifted and Talented Students Education Program	364	5.3	6,500
Innovative Education Program Strategies	1,265	0.4	350,000
Migrant Education Basic State Grant Program	1,958	0.7	299,475
Migrant Education Coordination Program	31	0.5	5,998
Magnet Schools Assistance	1,422	1.4	101,000
Perkins Act Tech-Prep Education	158	0.2	103,000
Perkins Act Vocational Education Basic Grants to States	5,292	0.5	1,009,852
Perkins Act Vocational Education Indians Set-Aside	315	2.4	13,013
			(continued)

Programs	1998 estimated program administrative costs <sup>a</sup> (in thousands of dollars)	Federal administrative costs as a percentage of total program costs <sup>b</sup>	1998 program funding <sup>c</sup> (in thousands of dollars)
Special Education Grants to States	6,913	0.2	3,807,700
Title I Grants to Local Education Agencies	7,028	0.1	7,375,232
Twenty-first Century Community Learning Centers	353	0.9	40,000
Women's Educational Equity Act Program	167	5.3	3,000
Institute of Museum and Library Services			
National Leadership Grants	2,805 <sup>g</sup>	2 <sup>g</sup>	5,488
Native American and Native Hawaiian Library Services Grants	g	g	2,561
State Grants	g	g	135,486
National Endowment for the Humanities			
Promotion of the Humanities Education, Development, and Demonstration Grants	655	12.4	4,649
Promotion of the Humanities Summer Seminars and Institutes	617	9.2	6,107

<sup>&</sup>lt;sup>a</sup>Administrative costs are in addition to program funding except where noted. In those cases, administrative costs are included in program funding.

<sup>b</sup>Administrative cost as a percentage of total program costs is calculated by dividing the 1998 administrative costs by the sum of 1998 program funding plus 1998 administrative costs, except for programs that pay administrative costs out of program funds. In those cases, administrative cost as a percentage of program funding is calculated by dividing the 1998 administrative cost by the 1998 program funding.

<sup>c</sup>Program funding includes all funding available as grants and includes—but may not be limited to—funds spent on technology.

dThe E-rate is a discount; no direct funding is involved.

eThis includes both FCC and SLD administrative costs.

The E-rate was funded for the 18-month period from January 1, 1998, through June 30, 1999, and the administrative costs are for the 12-month period from January 1, 1998, through December 31, 1998. In order to calculate administrative costs as a percentage of total program costs on an annual basis, the 18-month figure of \$1.66 billion was reduced by one-third to \$1.1 billion. Even though funding commitments were not made until late 1998 and early 1999, applicants are being reimbursed the discounted portion of bills they paid in full as early as January 1998. Therefore, the one-third reduction is a reasonably accurate estimate. The administrative costs in 1998 included substantial startup costs for system development and a procedure design audit.

<sup>9</sup>Institute of Museum and Library Services (IMLS) officials said they could not break out individual programs' administrative costs. The total estimated administrative cost for all three programs is \$2,805,000. The administrative cost as a percentage of total costs was calculated using the total funding for all three IMLS programs.

Appendix I Program Characteristics

			Federal F	TEs		
	Allocated to					
Programs	Total	Assigned to technology	implementing and awarding grants	Allocated to oversight	Professional	Support (clerical)
Programs that target technology						
Department of Education						
Special Education Technology and Media Services for Individuals With Disabilities	8	8	а	а	7	1
Star Schools	10	10	а	а	а	
Technology Innovation Challenge Grants	6	6	а	а	5	1
Technology Literacy Challenge Fund	1	1	а	а	1	0
Department of Agriculture						
Distance Learning and Telemedicine Grants	12	12	5	7	10	2
Department of Commerce						
Public Telecommunications Facilities Program <sup>b</sup>	12	12	7.5	4.5	9	3
Telecommunications and Information Infrastructure Assistance Program <sup>b</sup>	24	24	15.5	8.5	21	3
Federal Communications Com	mission					
Universal Service Discount for Schools and Libraries (E-rate) b,c	2	0	0	2	2	0
National Institutes of Health						
Information Systems and Access Grants	1	1	0.5	0.5	0.8	0.2
National Science Foundation						
Connections to the Internet	0.1	0.1	а	а	0.1	0
Programs that do not target techn	nology					
Department of Education						
Alaska Native Student Enrichment Program	0.3	0	а	а	0.3	0
Bilingual Education Capacity and Demonstration Grants	20	0	а	а	18	2
-						(continued)

	Federal FTEs						
Programs	Total	Assigned to technology	Allocated to implementing and awarding grants	Allocated to oversight	Professional	Support (clerical)	
Emergency Immigrant Education Assistance Program	0.3	0	а	а	0.3	0	
Foreign Language Assistance	1	0	а	а	1	0	
Eisenhower Professional Development Federal Activities	6	0	а	а	а		
Eisenhower Professional Development State Grants	17	0	а	а	15	2	
Fund for the Improvement of Education	5	0	а	а	а		
Goals 2000 State and Local Education Systemic Improvement Grants	15	6	а	а	12	3	
Javits Gifted and Talented Students Education Program	3	0	а	а	3	0	
Innovative Education Program Strategies	12	0	а	а	10	2	
Migrant Education Basic State Grant Program	19	0	а	а	17	2	
Migrant Education Coordination Program	0.3	0	а	а	0.3	0	
Magnet Schools Assistance	14	0	а	а	13	1	
Perkins Act Tech-Prep Education	2	2	а	а	2	0	
Perkins Act Vocational Education Basic Grants to States	50	0	а	а	40	10	
Perkins Act Vocational Education Indians Set-Aside	3	0	а	а	3	0	
Special Education Grants to States	66	0	а	а	58	8	
Title I Grants to Local Education Agencies	67	0	а	а	58	9	
Twenty-First Century Community Learning Centers	3	0	а	а	3	0	
Women's Educational Equity Act Program	2	0	а	а	2	0	

	Federal FTEs					
Programs	Total	Assigned to technology	Allocated to implementing and awarding grants	Allocated to oversight	Professional	Support (clerical)
Institute of Museum and Lib	rary Services					
National Leadership Grants	3.6	0	2.6	1	3.4	0.2
Native American and Native Hawaiian Library Services Grants	3.2	0	0.7	2.5	3	0.2
State Grants	4.9	0	0.9	4	4.9	0
National Endowment for the	Humanities					
Promotion of the Humanities Education, Development, and Demonstration Grants	7	0	7	0	7	0
Promotion of the Humanities Seminars and Institutes	7	0	7	0	7	0

<sup>&</sup>lt;sup>a</sup>This information is not tracked.

<sup>b</sup>Three programs reported contracting for activities in addition to grant readers for competitive awards. The USAC awarded contracts for E-rate customer support and application processing (199.6 FTEs); the TIIAP and the PTFP contract for data system redesign, professional consultants, and temporary administrative support, but do not track the number of FTEs under these contracts.

cusac's SLD employs about 15 FTEs for a variety of activities associated with E-rate administration including outreach and education, office management, and technology planning. The usac is a private, not-for-profit organization responsible for providing states and territories with access to affordable telecommunications services through the universal service fund.

# Processes for Awarding Funding

Funding is awarded through one of two processes.

The competitive grant process typically begins with an announcement in the Federal Register. Most programs also post information and application packages on their Web sites and mail information to potential applicants. Applicants—which could include schools, libraries, nonprofit organizations, and local government entities—generally have between 1 and 4 months to complete the application paperwork, depending on the program. During this time, program officials are available to provide information and, in some cases, guidance on preparing grant proposals. When the application period closes, program officials assemble a group of grant readers to review the proposals. According to program officials, grant readers typically have expertise in some aspect of the grant subject. For example, according to a program official, the Technology Innovation Challenge Grant program uses three types of grant readers: teachers, school administrators, and educational technology experts from outside the school system. Grant readers typically score the proposals using established criteria. For example, Commerce's THAP application package lists review criteria that include project purpose, feasibility, and significance; community involvement; and evaluation, documentation, and dissemination. Often, proposals are rank ordered according to their scores as part of the process to determine which will be funded.

The formula grant programs distribute their funds to eligible recipients—usually state agencies—using formulas established by legislation or regulation that determine the amount each receives. For example, the formula that determines the amount of funding each state receives from the Perkins Act Vocational Education Basic Grants to States program is based on each state's per capita income and its population of three specific age groups—with emphasis on ages 15 to 19. Many of the formula grant programs we identified included a formula factor that gives priority to low-income populations. For example, for Education's Eisenhower Professional Development State Grant Program, the formula is based on each state's population of children aged 5 through 17 and children from low-income families. Most formula programs we identified required potential recipients to submit a multiyear plan describing how the funding will be used. For example, the Technology Literacy Challenge Fund program requires each state education agency that applies for funding to submit a state technology plan that includes a description of long-term strategies for financing education technology in the state.

Table I.3: Processes for Awarding Funding

Programs that target technology Department of Education  Special Education Technology and Media Services for Individuals With Disabilities  Star Schools x  Technology Innovation Challenge x Grants  Technology Literacy Challenge Fund x  Department of Agriculture  Distance Learning and Telemedicine x Grants  Department of Commerce  Public Telecommunications Facilities x Program  Federal Communications Facilities x Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Billingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x  Assistance Program  Foreign Language Assistance x Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Program	Competitive award process	Formula award
Department of Education  Special Education Technology and Media Services for Individuals With Disabilities  Star Schools x  Technology Innovation Challenge x Grants  Technology Literacy Challenge Fund x  Department of Agriculture  Distance Learning and Telemedicine x Grants  Department of Commerce  Public Telecommunications Facilities x Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>9</sup> National Institutes of Health Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Billingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x  Essenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x		р	P
Media Services for Individuals With Disabilities  Star Schools  Technology Innovation Challenge Grants  Technology Literacy Challenge Fund  Department of Agriculture  Distance Learning and Telemedicine Grants  Department of Commerce  Public Telecommunications Facilities Program  Telecommunications and Information Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health Information Systems and Access Grants  National Science Foundation  Connections to the Internet  x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment Program  Billingual Education Capacity and Demonstration Grants  Emergency Immigrant Education  Assistance Program  Foreign Language Assistance  Eisenhower Professional Development State Grants  Fund for the Improvement of Education  x			
Technology Innovation Challenge Grants  Technology Literacy Challenge Fund x  Department of Agriculture  Distance Learning and Telemedicine x Grants  Department of Commerce  Public Telecommunications Facilities x Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate)®  National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Billingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x  Emergency Immigrant Education x  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Media Services for Individuals With	Х	
Grants Technology Literacy Challenge Fund  Department of Agriculture  Distance Learning and Telemedicine x Grants  Department of Commerce  Public Telecommunications Facilities x Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Billingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Star Schools	Х	
Department of Agriculture  Distance Learning and Telemedicine x Grants  Department of Commerce  Public Telecommunications Facilities x Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Billingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x  Assistance Program  Foreign Language Assistance x Elsenhower Professional Development x Federal Activities  Elsenhower Professional Development State Grants  Fund for the Improvement of Education x		Х	
Distance Learning and Telemedicine Grants  Department of Commerce  Public Telecommunications Facilities x Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Billingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x  Emergency Immigrant Education x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Technology Literacy Challenge Fund		Х
Public Telecommunications Facilities x Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> x and Libraries (E-rate) <sup>a</sup> x x x x x x x x x x x x x x x x x x x	Department of Agriculture		
Public Telecommunications Facilities Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Billingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x  Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x		Х	
Program  Telecommunications and Information x Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x  Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Department of Commerce		
Infrastructure Assistance Program  Federal Communications Commission  Universal Service Discount for Schools and Libraries (E-rate)a  National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x  Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x		Х	
Universal Service Discount for Schools and Libraries (E-rate) <sup>a</sup> National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x		Х	
And Libraries (E-rate)a  National Institutes of Health  Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x  Program  Billingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x  Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x  Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Federal Communications Commission	on	
Information Systems and Access Grants x  National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x  Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x			Х
National Science Foundation  Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	National Institutes of Health		
Connections to the Internet x  Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Information Systems and Access Grants	Х	
Programs that do not target technology  Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	National Science Foundation		
Department of Education  Alaska Native Student Enrichment x Program  Bilingual Education Capacity and Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x Eisenhower Professional Development Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Connections to the Internet	Х	
Alaska Native Student Enrichment x Program  Bilingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development State Grants  Fund for the Improvement of Education x	Programs that do not target technology	y	
Program  Bilingual Education Capacity and x Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x Eisenhower Professional Development Federal Activities  Eisenhower Professional Development x State Grants  Fund for the Improvement of Education x	Department of Education	_	
Demonstration Grants  Emergency Immigrant Education x Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development x State Grants  Fund for the Improvement of Education x		X	
Assistance Program  Foreign Language Assistance x  Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development x State Grants  Fund for the Improvement of Education x		X	
Eisenhower Professional Development x Federal Activities  Eisenhower Professional Development x State Grants  Fund for the Improvement of Education x			X
Federal Activities  Eisenhower Professional Development x State Grants  Fund for the Improvement of Education x	Foreign Language Assistance	Χ	
State Grants Fund for the Improvement of Education x	Eisenhower Professional Development Federal Activities	X	
			Х
0   0000 0   1   15   17	Fund for the Improvement of Education	Х	
Systemic Improvement Grants x	Goals 2000 State and Local Education Systemic Improvement Grants		Х

	Competitive award	Formula award
Program	process	process
Javits Gifted and Talented Students Education Program	Х	
Innovative Education Program Strategies		Х
Migrant Education Basic State Grant Program		Х
Migrant Education Coordination Program	X	
Magnet Schools Assistance	Х	
Perkins Act Tech-Prep Education		Х
Perkins Act Vocational Education Basic Grants to States		Х
Perkins Act Vocational Education Indians Set-Aside	Х	
Special Education Grants to States		Х
Title I Grants to Local Education Agencies		Х
Twenty-First Century Community Learning Centers	Х	
Women's Educational Equity Act Program	Х	
Institute of Museum and Library Serv	vices	
National Leadership Grants	Х	
Native American and Native Hawaiian Library Services Grants	Х	Х
State Grants		Х
National Endowment for the Humani	ties	
Promotion of the Humanities Education, Development, and Demonstration Grants	Х	
Promotion of the Humanities Seminars and Institutes	Х	

<sup>&</sup>lt;sup>a</sup>The E-rate provides discounts; no direct funding is involved.

Table I.4: Program Funding and Estimates of Amounts and Percentages for Technology, FY 1996-98

	-	FY 1996	
_	Program funding (in thousands of	Estimated amount for technology (in thousands of	Percentage for
Program	dollars)	dollars)	technology
Programs that target tech			
Department of Education		+0.000	
Special Education Technology and Media Services for Individuals With Disabilities	\$9,993ª	\$9,993	100
Star Schools	23,000	23,000	100
Technology Innovation Challenge Grants	38,000	38,000	100
Technology Literacy Challenge Fund	b	b	b
Department of Agricultu	ıre		
Distance Learning and Telemedicine Grants	7,500	7,500	100
Department of Commer	ce		
Public Telecommunications Facilities Program	16,425	14,303	87 <sup>e</sup>
Telecommunications and Information Infrastructure Assistance Program	24,530	22,228	91 <sup>e</sup>
Federal Communication	s Commission		
Universal Service Discount for Schools and Libraries (E-rate) <sup>f</sup>	g	g	g
National Institutes of He	ealth		
Information Systems and Access Grants	1,863	1,863	100
National Science Found	lation		
Connections to the Internet	596	596	100
Programs that do not targ	et technology		
Department of Education	n		
Alaska Native Student Enrichment Program	b	b	b

Appendix I Program Characteristics

FY 1998				FY 1997		
Percentage fo technology	Estimated amount for technology (in housands of dollars)	Program funding (in thousands of dollars) t	Percentage for technology	Estimated amount for technology (in nousands of dollars)	Program funding (in housands of dollars) th	
100	\$34,023	\$34,023	100	\$10,255	\$10,255ª	
100	34,000	34,000	100	30,000	30,000	
100	106,000	106,000	100	56,965	56,965	
100	425,000	425,000 <sup>d</sup>	100	200,000	200,000 <sup>c</sup>	
100	12,500	12,500	100	8,597	8,597	
92	19,944	21,767	89 <sup>e</sup>	14,623	16,461	
8!	18,511	21,782	87 <sup>e</sup>	20,902	23,953	
100	1,665,138 in discounts in the 18 mos. beginning 1/1/98	1,665,138 in discounts in the 18 mos. beginning 1 1/1/98	g	g	g	
100	1,550	1,550	100	1,701	1,701	
100	147	147	100	467	467	
	h	905	h	h	905	

		FY 1996	
Program	Program funding (in thousands of dollars)	Estimated amount for technology (in thousands of dollars)	Percentage for technology
Bilingual Education Capacity and Demonstration Grants	117,200	h	h
Emergency Immigrant Education Assistance Program	50,000	h	h
Foreign Language Assistance	10,039	h	h
Eisenhower Professional Development Federal Activities	17,984	360 - 900	2 - 5
Eisenhower Professional Development State Grants	274,265	h	h
Fund for the Improvement of Education	37,611	h	h
Goals 2000 State and Local Education Systemic Improvement Grants	340,000	34,997	10
Javits Gifted and Talented Students Education Program	3,000	300	10
Innovative Education Program Strategies	275,000	h	h
Migrant Education Basic State Grant Program	299,475	h	h
Migrant Education Coordination Program	b	b	b
Magnet Schools Assistance Program	91,959	17,104	19
Perkins Act Tech-Prep Education	100,000	h	İ
Perkins Act Vocational Education Basic Grants to States	962,976	h	h
Perkins Act Vocational Education Indians Set-Aside	12,387	h	h
Special Education Grants to States	2,323,837	h	h

FY 1998			FY 1997		
Percentage for technology	Estimated amount for technology (in nousands of dollars)	Program funding (in thousands of dollars) th	Percentage for technology	Estimated amount for technology (in ousands of dollars)	Program funding (in nousands of dollars) th
	h	160,000	h	h	141,650
	h	150,000	h	h	150,000
-	h	5,000	h	h	5,000
2 - 5	466 - 1,165	23,300	2 - 5	267 - 667	13,342
	h	335,000	h	h	310,000
	h	108,100	h	h	40,000
	h	466,000	9	42,854	476,000
10	650	6,500	10	500	5,000
	h	350,000	h	h	310,000
	h	299,475	h	h	299,473
59	3,300	5,998	59	3,300	5,998
26	26,462	101,000	29	26	92,000
i	h	103,000	i	h	100,000
	h	1,009,852	h	h	1,004,904
	h	13,013	h	h	12,592
	h	3,807,700 <sup>j</sup>	h	h	3,107,522

		FY 1996	
Program	Program funding (in thousands of dollars)	Estimated amount for technology (in thousands of dollars)	Percentage for technology
Title I Grants to Local Education Agencies	6,730,348	h	h
Twenty-First Century Community Learning Centers	750	h	h
Women's Educational Equity Act Program	0	0	0
Institute of Museum and	l Library Services		
National Leadership Grants	g	g	g
Native American and Native Hawaiian Library Services Grants	k	k	k
State Grants	k	k	k
National Endowment fo	r the Humanities		
Promotion of the Humanities Education, Development, and Demonstration Grants	3,645	1,700	47
Promotion of the Humanities Seminars and Institutes	10,018	<100	<1

	FY 1998			FY 1997	
Percentage for technology	Estimated amount for technology (in thousands of dollars)	Program funding (in thousands of dollars)	Percentage for technology	Estimated amount for technology (in thousands of dollars)	Program funding (in thousands of dollars)
-	h	7,375,232	3	240,000	7,295,232
ı	h	40,000	h	h	1,000
·	h	3,000	h	h	2,000
75	4,116	5,488	g	g	9
35	896	2,561	k	k	k
50	67,734	135,486	k	k	k
67	3,130	4,649	58	2,302	3,988
<1	<61	6,107	<1	<63	6,329

<sup>a</sup>The Technology Services program and the Media Services and Captioning program were separate programs in 1996 and 1997. According to a program official, this funding amount represents the funding level for the Technology Services Program only. The Media Services and Captioning program did not provide funding to schools or libraries.

<sup>b</sup>Not applicable—this program was new in 1997.

clncludes \$750,000 program evaluation set-aside.

dIncludes \$2 million program evaluation set-aside.

<sup>e</sup>We consider programs that target technology to be 100 percent for technology, with the exception of the two Commerce programs that pay administrative costs out of their program appropriation. (The remaining programs pay administrative costs from separate administrative budgets.)

<sup>f</sup>The E-rate is a discount; no direct funding is involved.

<sup>9</sup>Not applicable—this program was new in 1998.

<sup>h</sup>Program officials said they were unable to provide an estimate of the percentage or amount spent on technology.

According to the program director, this program is considered 100 percent for technology, but includes other types of technology in addition to information and telecommunications technology.

<sup>j</sup>Includes \$6.7 million program evaluation set-aside.

<sup>k</sup>According to an IMLS official, changes were made to the Native American and Native Hawaiian Library Services program and the State Grant program, when they were moved from the Department of Education, that would make comparisons of 1998 data with 1996 and 1997 data invalid.

# Potential for Duplication

What is the potential for duplication of programs for K - 12 schools and libraries as seen in the targeted activities and recipients of each program?

## Potential for Duplication Is Limited

We analyzed the 35 programs that could fund technology for schools or libraries, using a framework we developed during our work on the Government Performance and Results Act. Holie we found that there are similarities among the programs, we did not identify instances where two programs were designed to provide identical services to identical recipients. We relied on agency program documents and interviews with agency officials to ascertain the similarity of goals, strategies, and recipients. From that review, we found that programs varied in at least one of the three factors. Due to the number of programs and individual recipients, we did not examine the implementation of each program or individual grantee awards to ascertain the similarity of goals, strategies, and recipients.

To more easily examine the three factors, we grouped the programs on the basis of activities—whether technology is the only activity to which a program's funds can be applied, and recipients—whether schools or libraries are the only targeted recipients. As table II.1 shows, this produces four groups of programs. The first group focuses on the programs that are most similar to each other because they specifically target schools or libraries as the recipients and technology as the strategy or activity to achieve program goals. In contrast, the fourth group is the most varied. These programs target neither technology nor schools and libraries, but permit spending on many activities besides technology and provide money to recipients in addition to schools or libraries.

Table II.1: Matrix for Grouping Programs That Can Be Used for Technology

	Types of recipients		
Program purpose	Schools or libraries targeted	Schools or libraries allowed but not exclusively targeted	
Technology targeted	Category I: targets schools or libraries and technology (4 programs)	Category III: targets technology but not schools or libraries (6 programs)	
Technology allowed but not exclusively targeted	Category II: targets schools or libraries but not technology (22 programs)	Category IV: does not target schools, libraries, or technology (3 programs)	

 $<sup>^{14}</sup>Managing \ for \ Results:$  Using the Results Act to Address Mission Fragmentation and Program Overlap (GAO/AIMD-97-146, Aug. 29, 1997).

### Category I: Programs That Target Schools or Libraries and Technology

Four of the 35 programs fall into the category of targeting funds exclusively to schools or libraries and technology. Education administers three of the programs (Star Schools, Technology Innovation Challenge Grants, and Technology Literacy Challenge Fund), and the FCC administers the fourth (the E-rate). Table II.2 shows the goals, activities, and recipients for these four programs. When these programs are analyzed in terms of their goals, activities, and targeted recipients, all four are found to be similar in one aspect—they target school districts with a high percentage of children from low-income families. In other respects, they vary; for example:

- Education's Technology Innovation Challenge Grants program and the
  Technology Literacy Challenge Fund program are the most similar. Both
  are aimed at using technology in the classroom, both fund the same types
  of technology-related activities, and both provide funding exclusively to
  schools. However, there is a distinction between these programs: the
  Innovation Challenge grants focus more on identifying innovative uses of
  technology in the classroom, while the Literacy Challenge Fund grants
  focus more on increasing the use of established technology and integrating
  technology into the school curriculum.
- The goals of the two remaining programs differ both from the first two programs and from each other. The Star Schools program focuses on improving student instruction through distance learning technologies such as satellites and fiber optics, 15 while the E-rate focuses on improving schools' and libraries' access to telecommunications services. The Star Schools program provides project grants, while the E-rate program provides discounts to schools and libraries for specific kinds of technology—internal connections, Internet access, and other commercial telecommunications services.

<sup>&</sup>lt;sup>15</sup>Distance learning provides underserved populations, such as those in rural areas, access to education and other services through telecommunications technologies. For example, a teacher in one location can teach students in another.

### Appendix II Potential for Duplication

Program	Program goals	Program activities	Targeted recipients
Department of Educa	tion		
Star Schools	To use distance learning to (1) improve instruction in mathematics, science, foreign languages, and other subjects, such as literacy skills and vocational education; (2) serve underserved populations, including the disadvantaged, illiterate, limited-English proficient, and individuals with disabilities	General projects that (1) develop, construct, acquire, and maintain telecommunications facilities and equipment; (2) develop and acquire live interactive educational and instructional programming; (3) obtain technical assistance for the use of such facilities and instructional programming; Dissemination projects designed to provide dissemination and technical assistance to help state education agencies (SEA) and local education agencies (LEA) plan and implement technology-based distance learning systems	Priority to LEAs with a high percentage of children from low-income families
Technology Innovation Challenge Grants	To implement, evaluate, and document innovative applications of information and computer technologies to support systemic educational reform	Activities such as software development; extending learning by connecting schools to other schools for collaborative learning and to libraries, businesses, and other organizations; professional development that leads to effective integration of technology into the curriculum; strategies that use technology to help at-risk students achieve	Priority to LEAs with a high percentage of children from low-income families
Technology Literacy Challenge Fund	To implement state strategies designed to enable all schools to integrate technology into school curriculum so that all students become technologically literate in reading, math, science, and other core academic skills essential for their success in the 21st century	Apply technology to support school reform, acquire hardware and software to improve student learning, provide connections to telecommunications networks to obtain access to resources and services, provide ongoing professional development in integrating technology into the school curriculum, and provide education services for adults and families	Priority to LEAs with a high percentage of children from low-income families and that demonstrate a great need for technology

#### Appendix II Potential for Duplication

Program	Program goals	Program activities	Targeted recipients
Federal Communicat	ions Commission		
Universal Service Discount for Schools and Libraries (E-rate)	To improve schools' and libraries' access to modern telecommunications services	Internal connections, Internet access, and other telecommunications services	K - 12 and vocational education students and library users; largest discounts are given to schools and libraries in districts with a high percentage of children from low-income families

### Category II: Programs That Target Schools or Libraries but Not Technology

The largest of the four categories includes programs that target schools or libraries but do not target technology. Twenty-two of the 35 programs are in this category. These programs allow schools or libraries to use funds for technology, but in many of the programs, technology is only one of many activities to which the funding can be applied. Education administers 19 of the programs, while the Institute of Museum and Library Services (IMLS), which supports all types of libraries through grants and discretionary programs, administers the three others. <sup>16</sup> Table II. 3 shows the goals, activities, and recipients for these programs.

### **Education Programs**

Many of the 19 Education programs in this category share a similar goal of improving student achievement or providing equal access to education. Some are targeted to specific groups of students, such as those with limited English proficiency, Native American students, gifted students, disabled students, and students at risk of failing to meet their state's academic standards. Others target aid to the nation's schools in general. Here are examples that show the differences between programs in this regard:

• An example of a school-targeted program with a broad range of activities is Education's Title I, Part A, Grants to Local Education Agencies program, commonly known as Title I. Title I funds are used to provide supplemental academic programs to students at risk of failure and to support activities as varied as paying for teachers, developing new curricula, and buying instructional materials—including technology. Program officials said that they do not keep track of how much of the funding is spent specifically on technology, nor do they know specifically what kinds of technology schools purchase. However, a recent Education study estimated that

 $<sup>^{16}\</sup>mbox{The Congress}$  established this independent agency in 1996 to improve museum, library, and other information services.

- technology expenditures from Title I funding totaled about \$240 million in 1997, or about 3 percent of the year's Title I funding.<sup>17</sup>
- An example of a more narrowly focused program is the Alaska Native Student Enrichment program. The goal of this program is to provide enrichment programs and family support services for Alaska Native students from rural areas who are preparing to enter village high schools so that they can excel in science and mathematics. The activities used to meet the goal of this program are broad in that they can include any activity that will provide qualified students the services needed to help them excel in science and mathematics. In 1997, three multiyear grants were awarded; none of the grants were awarded to elementary or secondary schools.

# **IMLS Programs**

The three programs administered by the IMLS—National Leadership Grants, State Grants, and Native American and Native Hawaiian Library Services Grants—are all targeted to libraries or museums; in one case, grantees are limited to organizations that serve Indian tribes, Alaska Natives, and Native Hawaiians. While the goals of these programs are similar, there are distinctions that limit the potential for duplication; for example:

- The State Grants program is the only program that allocates funds to all 50 states. This program establishes or enhances electronic linkages between libraries to promote access to learning and provide access to people of diverse backgrounds, including those with disabilities or with limited functional literacy or information skills.
- The National Leadership Grants program provides grants for specific activities such as educating and training library professionals, enhancing library services through technology, developing model programs of cooperation between libraries and museums, and preserving unique library services. In 1998, this program awarded 41 grants to organizations such as universities and public library systems.
- The Native American and Native Hawaiian Library Services Grants program supports projects that establish or enhance library services to federally recognized Indian tribes or organizations that serve and represent Native Hawaiians. In 1998, 287 grants were awarded.

 $<sup>^{17}</sup>$  U.S. Department of Education, Promising Results, Continuing Challenges: The Final Report of the National Assessment of Title I (1999).

Program	Program goals	Program activities	Targeted recipients
Department of Educa	tion		
Alaska Native Student Enrichment Program	To provide enrichment programs and family support services for Alaska Native students from rural areas who are preparing to enter village high schools so they may excel in science and mathematics	Activities (1) prepare qualified students who are preparing to enter village high schools to excel in science and mathematics and (2) provide support services to the families of such students	Alaska Native students in rural areas preparing to enter a village high school
Bilingual Education Capacity and Demonstration Grants	To develop and enhance high-quality instruction through bilingual education or special alternative instruction to children and youth of limited English proficiency to (1) develop proficiency in English, and to the extent possible, their native language, and (2) meet the state achievement standards expected for all students	Programs that provide direct services to students with limited English proficiency through the school system, family education, or early childhood programs	Students with limited English proficiency
Emergency Immigrant Education Assistance Program	To assist SEAs and LEAs that experience unexpectedly large increases in their student population due to immigration in providing supplementary educational services and offsetting costs for migrant children	Funds are used to provide (1) supplementary educational services, (2) additional basic instructional services, and (3) inservice training for personnel instructing immigrant children	SEAs, LEAs, and immigrant children enrolled in public and nonpublic schools
Foreign Language Assistance	To support innovative model programs of foreign language study in public schools	Projects that support innovative model programs of foreign language study in K - 12 schools	K - 12 students
Eisenhower Professional Development Federal Activities	To develop and implement high-quality professional development for K - 12 teachers in the core academic subjects and stimulate reform in professional development nationally in areas that are likely to generate findings of national significance	Projects that focus on developing and implementing high-quality professional development for K - 12 teachers in the core academic subjects	K - 12 teachers

Program	Program goals	Program activities	Targeted recipients
Eisenhower Professional Development State Grants	To provide high-quality professional development activities primarily in science and mathematics but may also include other core academic subjects	Activities ensure that teachers and other staff have access to professional development that (1) is tied to challenging state standards, (2) reflects recent research on teaching and learning, (3) includes strong academic content and pedagogical components, (4) incorporates strategies for meeting the needs of diverse populations, (5) is of sufficient intensity and duration to have an impact on teacher performance in the classroom, and (6) is part of everyday life and continuous improvement	K - 12 teachers
Fund for the Improvement of Education	To support nationally significant and innovative programs for improving education	Funds may be used for a wide range of projects under the authority of the program. Examples of projects include (1) Competitions for State Partnerships for Character Education to teach caring, citizenship, justice and fairness, respect, responsibility, and trustworthiness; (2) Blue Ribbon Schools program to identify and recognize outstanding schools; (3) Christa McAuliffe Fellowship program to identify outstanding teachers	K - 12 students
Goals 2000, State and Local Education Systemic Improvement Grants	To provide grants to state education agencies to support comprehensive state and local education reform tied to high standards for all students	The program supports teacher preservice and inservice training, development of standards and assessments, local education reform activities, technology, and other crosscutting activities	K - 12 students and teachers
Javits Gifted and Talented Students Education Program	To provide financial assistance to improve the teaching and learning of gifted and talented students through research, demonstration projects, personnel training, and other activities of national significance	Projects must (1) incorporate high-level content and performance standards in one or more of the core subject areas, (2) provide professional development, (3) provide training for parents to support their children's educational progress, (4) include an evaluation of the project's activities, and (5) include innovative teaching strategies	Teachers and gifted and talented students; priority is given to projects that (1) serve students who are economically disadvantaged, have limited English skills, are disabled, or are at risk of being unrecognized and underserved; and (2) operate in Empowerment Zones and Enterprise Communities

Program	Program goals	Program activities	Targeted recipients
Innovative Education Program Strategies	To assist education agencies in the reform of elementary and secondary education	Technology to increase student learning, teacher training, acquisition and use of instructional and educational materials, education reform projects, programs to improve higher-order thinking skills of disadvantaged K - 12 students and to prevent student drop-out, literacy programs for students and adults, programs for gifted and talented students, and school improvement and reform activities	All K - 12 students; funds are distributed to LEAs according to the relative enrollments in public and private, nonprofit schools within the school districts and are adjusted to provide higher per-pupil funding to districts with high numbers of children from low-income families or in sparsely populated areas
Magnet Schools Assistance	To provide grants to LEAs for use in magnet schools that are part of an approved desegregation plan and designed to bring together students from different social, economic, racial, and ethnic backgrounds	Programs for magnet schools that (1) eliminate, reduce, or prevent minority group isolation in public K - 12 schools with substantial proportions of minority group children; (2) develop and implement projects that will assist systemic reform and provide all children the opportunity to meet challenging state content standards and student performance standards; (3) develop and design innovative education methods and practices; and (4) provide courses of instruction that will strengthen the knowledge of academic subjects and the grasp of tangible and marketable vocational skills of students	LEAs and students that attend magnet schools
Migrant Education Basic State Grant Program	To assist states to ensure that migrant children meet the same state content and performance standards all children are expected to meet	Activities that identify eligible children and their needs and provide educational and support services, teacher training, advocacy and outreach, parental involvement activities, and equipment acquisition that address the needs of eligible children	Migrant students with priority to children at risk of failing to meet state content and performance standards
Migrant Education Coordination Program	To encourage interstate and intrastate coordination of migrant education and reduce the administrative costs of SEAs receiving Title I, Migrant Education Program funds	Works with (1) programs in federal agencies that improve coordination services to migrant workers and families to develop programs that encourage states to work together by coordinating identification and recruitment efforts, administer out-of-state testing, utilize distance learning technology, and develop multistate assessment instruments; and (2) programs that explore the use of technology to improve teaching and learning for highly mobile migrant students	Migrant students

Program	Program goals	Program activities	Targeted recipients
Perkins Act Tech-Prep Education	To develop and operate 4-year programs designed to provide an education program leading to a 2-year associate degree or certificate and to provide, in a systematic manner, comprehensive links between secondary schools and postsecondary educational institutions	Activities that provide a 4-year curriculum with a common core in math, science, communications, and technologies designed to lead to an associate degree or certificate in a specific field, including training for teachers and counselors	Individuals who want to participate in a combined secondary/postsecondary program leading to an associate degree or 2-year certificate with technical preparation in at least one field of engineering, applied science, mechanical, industrial, or practical art or trade; or agriculture, health, or business
Perkins Act Vocational Education Basic Grants to States	To assist states and outlying areas to expand and improve their vocational education programs and provide special needs populations equal access to vocational education	Funds may be used for any purpose or student so long as the larger goal is to enhance vocational education in the school or program	Ranges from high school students to adults who need retraining to adapt to changing technological and labor market conditions
Perkins Act Vocational Education Indians Set-Aside	To provide financial assistance to Indian tribes or tribal organizations and Bureau of Indian Affairs-funded schools to plan, conduct, and administer vocational education programs	Funds may be used for (1) remedial education, only to the extent that it is necessary for a vocational education student to benefit from vocational instruction; and (2) the integration of academic and vocational education through coherent sequences of courses so that students achieve both academic and occupational competencies	Federally recognized Indian tribes, Alaska Natives, and Bureau of Indian Affairs-funded schools
Special Education Grants to States	To improve results for children with disabilities by helping SEAs and LEAs provide children with disabilities access to high-quality education that will help them meet challenging standards and prepare them for employment and independent living	Federal funds are combined with state and local funds to provide all children with disabilities an appropriate education, including special education and related services; funds are used for teachers and other personnel salaries, education materials, related services such as special transportation or occupational therapy that allow children with disabilities to access education-related costs	Children and youth with disabilities (aged 3-21)
Title I,Grants to Local Education Agencies Agencies	To provide supplemental academic support to help students at risk of failure to meet challenging academic standards	Instruction and instructional support, which includes hiring teachers and teacher aides, and purchasing instructional materials	Students who are failing or at risk of failing to meet state academic standards

Program	Program goals	Program activities	Targeted recipients
Twenty-First Century Community Learning Centers	To provide grants to inner-city and rural K - 12 public schools, or consortia of such schools, to enable them to plan, implement, or expand projects that benefit the educational, health, social services, cultural, and recreational needs of their communities	Activities must include at least four of the following kinds of programs: (1) literacy education; (2) senior citizen programs; (3) children's day care services; (4) integrated education, health, social service, recreational, or cultural activities; (5) summer and weekend school programs in conjunction with recreation; (6) nutrition and health; (7) expanded library service hours to serve community needs; (8) telecommunications and technology education for all ages; (9) parenting skills education; (10) support and training for child day care providers; (11) employment counseling, training, and placement; (12) services for individuals who leave school before graduating from secondary school; and (13) services for individuals with disabilities	Residents of all ages within the communities served by the learning centers

Program	Program goals	Program activities	Targeted recipients
Institute of Museum	and Library Services		
National Leadership Grants	To enhance the quality of library services nationwide and provide coordination between libraries and museums	Projects include (1) training and education in library and information science, including graduate fellowships, traineeships, institutes, and other programs; (2) applied research and demonstration efforts that emphasize access to improved library and information resources; (3) preserving unique library resources or addressing the challenges of preserving and archiving digital media; (4) developing, documenting, and disseminating both the processes and products of model programs of cooperation between libraries and museums with emphasis on how the community is served, technology is used, or education is enhanced	Libraries and museums
Native American and Native Hawaiian Library Services Grants	To support Indian tribes, Alaska Native villages, and organizations that serve and represent Native Hawaiians in providing library services to their communities	Funds may be used to provide library services to the Native American and Native Hawaiian communities for ongoing library services provided by an established library, to improve existing library services, or to implement new library services as part of an established library	Indian tribal libraries, Alaska Native villages, and organizations that serve Native Hawaiians
State Grants	To (1) consolidate federal library programs; (2) promote access to learning and information in all types of libraries; (3) promote electronic networks; (4) provide linkages among and between libraries; and (5) target people of diverse backgrounds, individuals with disabilities, and those with limited functional literacy or information skills	Activities that establish or enhance electronic linkages among or between libraries; and/or electronically link libraries with educational, school, or information services	Users of libraries and information services

# Category III: Programs Targeting Technology but Not Schools or Libraries

Six programs have goals and activities targeted to technology but not to schools or libraries. These six programs, shown in table II.4, vary greatly in their goals, activities, and recipients. Some have a broad focus, while others are relatively narrow; for example:

• The THAP, administered by Commerce, provides funding for a broad range of technology-related activities and for a wide range of recipients. Its goal is to promote the development, widespread availability, and use of

advanced telecommunications and information technology that serves the public interest. In 1998, libraries and K - 12 schools received or were beneficiaries of slightly more than one-fourth of the 46 grants awarded. The rest went to such organizations as police and fire departments, health care providers, universities and community colleges, and other community organizations.

• The Special Education Technology and Media Services for Individuals With Disabilities program has a much narrower set of goals, activities, and recipients. This program promotes the research, development, and demonstration of innovative and emerging technologies for disabled children. A program official said that grants from this program are awarded primarily to universities and research organizations that specialize in research activities for the disabled. Of the 36 grants awarded in 1998, 1 went to a school district, 1 to a state education agency, and none to libraries.<sup>18</sup>

<sup>&</sup>lt;sup>18</sup>For the entire Technology and Media Services program, 85 grants were awarded in 1998; 36 of the grants were awarded in the categories that support the kinds of technology that could be used in the classroom. The remaining 49 grants were primarily for captioning services for the deaf.

Program	Program goals	Program activities	Targeted recipients
Department of Educa	ition		
Special Education Technology and Media Services for Individuals With Disabilities	To promote the development, demonstration, and utilization of technology; and support education media activities for children with disabilities	Research, development, and demonstration of innovative and emerging technologies for children with disabilities	Children and other persons with disabilities and their families
Department of Comm	nerce		
Public Telecommunications Facilities Program	To extend telecommunications services, including public broadcasting services and nonbroadcast technologies; increase public broadcasting services and facilities available to, operated by, and owned by minorities and women; strengthen the capability of existing public television and radio stations; and facilitate development of a variety of technology-oriented distance learning projects	Grants for the planning and construction of telecommunications facilities; matching grants for apparatus necessary for the production, dissemination, interconnection, captioning, broadcast, or other distribution of programming and reception of noncommercial educational, and cultural radio and television programs, and related noncommercial instructional or informational material	General public and students, with special consideration to projects that increase minority and women's participation in and ownership of public telecommunications entities
Telecommunications and Information Infrastructure Assistance Program	Promote the development, widespread availability, and use of advanced telecommunications and information technologies to serve the public interest	Projects that improve the quality of, and the public's access to, cultural, educational, and training resources; reduce the cost, improve the quality, and/or increase the accessibility of health care and public health services; promote responsive public safety; improve the effectiveness and efficiency of government services; and foster communication, resource-sharing, and economic development within communities, both rural and urban	General public
Department of Agricu	ulture		
Distance Learning and Telemedicine Grants	To enhance learning and health care opportunities for rural residents	Telecommunications, computer networks, and related technologies that provide educational and/or medical benefits to students, teachers, medical professionals, and rural residents	Individuals living in rural areas

Program	Program goals	Program activities	Targeted recipients
National Institutes of	f Health		
Information Systems and Access Grants	To foster the use of computer and telecommunications technologies to coordinate and disseminate health information	Projects that promote sharing of information resources, particularly those that (1) incorporate online access to National Library of Medicine databases and (2) improve information availability in underserved rural and inner-city health facilities and provide AIDS information	Health education information providers
National Science For	undation		
Connections to the Internet	Encourage Internet connections for highly innovative strategies with potential for accelerating network development	The acquisition and maintenance of hardware and software to establish institutional access to the Internet as well as the installation and recurring charges for a communication channel	K - 12 schools, libraries, and museums

Category IV: Programs That Do Not Target Schools or Libraries or Technology

The three remaining programs that could be used by schools and libraries as a technology funding source do not target schools or libraries and also do not target technology. Two of the programs—the Promotion of the Humanities Education, Development, and Demonstration Grants and the Promotion of the Humanities Seminars and Institutes—are administered by the National Endowment for the Humanities. These two programs have similar goals and targeted recipients in that both promote programs to improve teaching in the humanities. However, there are differences. The former supports projects that can strengthen teachers' abilities to engage their students in the study of the humanities and determine how specific topics are best taught and learned. The latter awards grants for summer seminars and institutes to promote better teaching and research in the humanities. The third program—the Women's Educational Equity Act Program, which is administered by Education—promotes equity in education for women and girls. See table II.5 for more detail about these programs.

Program	Program goals	Program activities	Targeted recipients
Department of Education			
Women's Educational Equity Act Program	To promote gender equity in education for women and girls in the United States	Activities that implement gender equity programs in schools and develop model equity programs through research and development, including development of training for teachers, leadership training for women and girls, programs that enhance education and career opportunities, assistance to pregnant students and students with children to complete secondary school, development of educational materials designed to achieve equity, and programs that address sexual harassment and violence	Female students
National Endowment for the Hu	manities		
Promotion of the Humanities Education, Development, and Demonstration Grants	To support teachers and educational institutions at all levels to engage students in the study of the humanities	Projects that strengthen the capacity of teachers to engage their students in the substantive study of the humanities and address how specific humanities topics are best taught and learned	Teachers of humanities and their students
Promotion of the Humanities Summer Seminars and Institutes	Promote better teaching and research in the humanities through faculty development	Projects for summer seminars and national institutes; project awards support direct costs, including salaries, participant stipends, selection costs, travel, and supplies	K - 12 and college teachers, their colleagues, and students

# **Coordination Efforts**

What efforts have been made to coordinate federal education and technology programs? Specifically,

- What are the missions, activities, and staffing levels of the Department of Education Office of Educational Technology (OET) and the White House Office of Science and Technology Policy (OSTP)?
- What efforts are being made by these offices to coordinate federal education and technology programs?
- How can the Results Act be used to coordinate and reduce duplication in these programs?

# Missions, Activities, and Staffing of the OET and the White House OSTP

Education's OET and the White House OSTP have different missions relative to technology. OET creates policy and provides oversight specifically for educational technology within Education and participates in coordination activities and policy initiatives associated with education technology across the federal government and within the education community. OSTP focuses on broad national science and technology goals, and facilitates the development and implementation of federal policies associated with these goals, including coordinating interagency efforts to develop and implement technology policies, programs, and budgets.

# OET Focuses on Using Technology in Schools

OET'S mission is to provide leadership in creating policy and providing oversight for Education's educational technology initiatives, according to the OET Director. OET also advises the Secretary of Education and is involved in strategic planning regarding educational technology, according to the OET Director. An example of OET's activities was the office's collaboration with the White House, in 1998, to host a meeting that brought together more than 150 state and local educators, business and industry leaders, and education association representatives to discuss and exchange ideas for technology training for teachers. One result of this meeting was a set of recommendations for a new teacher training initiative—Technology Training for Teachers—to ensure that teachers are proficient in using technology for teaching and learning.

OET, which is under the Office of the Deputy Secretary of Education, is staffed by four professionals. In addition, the office generally has one or two detailees—one from a school district or state department of education whose salary is paid by Education under the Intergovernmental Personnel Act, and one from another principal office within Education, according to the OET Director.

OSTP Promotes the Development and Application of Technology for the Nation OSTP provides the president with scientific and technological analysis and judgment with respect to major policies, plans, and programs of the federal government. OSTP's Technology Division is concerned with federal policies for developing technology to serve broad national goals such as global economic competitiveness, environmental quality, and national security. In developing national policies, OSTP works with the president's Committee of Advisors on Science and Technology, which is co-chaired by the president's Advisor for Science and Technology, who also is the Director of OSTP. This committee of national experts in science and technology provides independent advice to the president on science- and technology-related matters, including educational technology. For example, in 1995, a panel of academic and private sector experts was convened to address the administration's concern about issues related to educational technology. The result of this effort was a report that made specific recommendations in a number of areas, including how technology should be used in the classroom, professional development for teachers, and education research. 19 A direct result of the recommendations of this report was an OSTP-led interagency initiative for education research, including educational technology.<sup>20</sup>

OSTP had 32 federal FTES in fiscal year 1998; staff were responsible for all OSTP activities. Of these, 22.5 were professional staff and 9.5 were support staff. Additional staff, such as fellows and agency representatives, were paid through their respective organizations or agencies. However, only half of one professional staff year is devoted specifically to educational technology issues (about a quarter of two staff members' time).

<sup>&</sup>lt;sup>19</sup>President's Committee of Advisors on Science and Technology Panel on Educational Technology, Report to the President on the Use of Technology to Strengthen K - 12 Education in the United States (Mar. 1997).

<sup>&</sup>lt;sup>20</sup>Agencies involved in this initiative are the National Science Foundation, the Department of Education, and the National Institute of Child Health and Human Development.

# Both Offices Play a Role in Coordinating Federal Technology Programs

# **OET**

Education's OET has a major role in coordinating educational technology programs within the Department, across federal agencies, and within the education community; for example:

- Within Education, the OET Director meets regularly with technology program officials and officials from various department offices to share information on grant project best practices and to discuss and resolve current issues, according to an OET official. Information from these meetings is also shared with grantees across the country. The OET Director meets bimonthly with the representatives of Education's technology programs, including the Technology Innovation Challenge Grants, the Technology Literacy Challenge Fund, Star Schools, Technology for Tomorrow's Teachers, Learning Anytime-Anywhere Partnerships, and Community Technology Centers. The Director also attends meetings with officials from various Education offices, including Special Education and Rehabilitative Services, Higher Education, Elementary and Secondary Education, Vocational and Adult Education, and Educational Research and Improvement.
- OET represents Education on various interagency committees to identify
  mutual interests and determine ways that federal departments and
  agencies can share expertise and resources to avoid duplication of effort,
  according to an OET official. For example, the director represents
  Education on OSTP committees such as the National Science and
  Technology Council. The director also leads an Education working group
  that addresses issues related to the E-rate. Other participants include
  representatives from Commerce, Agriculture, and the Office of the Vice
  President.
- Within the education and research community, OET brings parties together to leverage resources. For example, when the state of Nebraska created a curriculum of 50 on-line high school distance learning courses as part of its Star Schools program, OET suggested that the program's creators host an Internet conference to share their experience with educators nationwide, according to OET officials. In another project, the American Institutes for Research (AIR) proposed to OET that AIR develop a how-to

guide for evaluating technology programs and tracking results. After reviewing the draft, OET asked AIR to share its work with the state directors of the Technology Literacy Program. State officials provided input and the result was An Educator's Guide to Evaluating the Use of Technology in Schools and Classrooms, published in 1998.

# **OSTP**

OSTP's role in coordinating among federal agencies is to help bridge the differences in agencies' cultures so that they can work together, according to the Technology Division associate director. OSTP works with the National Science and Technology Council, a Cabinet-level council that coordinates the diverse elements of federal science and technology research and development. The Council comprises interagency committees and work groups. Each major committee is co-chaired by a senior official from a federal agency or department and is co-chaired by an OSTP associate director. Through the Council and other, more informal means, OSTP provides leadership in coordinating science and technology-related activities across the federal government. OSTP has a broad role in coordinating education policy and education technology as part of that effort, according to OSTP officials. For example,

- OSTP participated in the discussions with Education officials when the
  Technology Literacy Challenge Fund was being developed. Education
  officials said that the purpose of the fund was to provide an incentive to
  states. To receive a share of the fund, states were required to develop a
  plan for getting technology into K 12 schools and integrating it into the
  school curriculum. States could then use the funds to purchase
  technology. Once the legislation passed, implementation of the program
  was the responsibility of Education and OSTP was no longer involved.
- OSTP is currently coordinating the Interagency Education Research Initiative (IERI), a joint education research program created to develop new ways of improving the core of K - 12 education. Education technology is a central element of the research. Participants include Education's Office of Educational Research and Improvement, the National Science Foundation, and the National Institute of Child Health and Human Development at the National Institutes of Health. This interagency effort specifically links the best science in teaching and learning to the development, evaluation, and widespread dissemination of technology-based tools for teachers and students to raise student achievement, according to an OSTP associate director.

The Results Act
Provides a
Framework for
Coordinating and
Reducing Duplication
Among Federal
Technology Programs

The Results Act's emphasis on outcomes implies that federal programs contributing to the same or similar results should be closely coordinated to ensure that program efforts are mutually reinforcing. The act requires agencies to develop strategic plans and annual performance plans that clearly specify goals, objectives, and measures for their programs. Agency performance plans can provide the basis for recognizing crosscutting efforts because they provide information on programs that cut across agency lines and share common goals. Agencies should identify multiple programs within or outside the agency that contribute to the same or similar goals and describe their efforts to coordinate with them, according to Office of Management and Budget (OMB) guidance. However, because of the iterative nature of performance-based management, more than one cycle of performance plans will probably be required to resolve duplication in programs.

In earlier work on the Results Act, we reviewed agencies' strategic and performance plans. <sup>21</sup> In most plans we found that one of the most challenging issues for agencies was recognizing the importance of coordinating crosscutting programs. In our review of Education's 2000 Performance Plan, we found that the Department included a discussion of the need for coordination with other federal agencies for almost all objectives and, in general terms, the issues or efforts that require this coordination. However, the plan did not identify or describe common or complementary performance goals and measures elsewhere in the federal government that relate to Education's goals and measures.

<sup>&</sup>lt;sup>21</sup>Managing for Results: Agencies' Annual Performance Plans Can Help Address Strategic Planning Challenges (GAO/GGD-98-44, Jan. 30, 1998).

What, if any, information is available about each program's potential problems regarding fraud, waste, abuse, and efforts to eliminate the problems?

No Evidence in OIG Reports of Systemic or Widespread Problems We limited our review to reports issued by the Education, Commerce, and Agriculture Offices of Inspector General (OIG) between October 1995 and March 1999 and did not review individual grantees. We did not find that fraud, waste, and abuse are systemic or widespread problems for the programs that could fund information technology for schools and libraries, although some OIGS identified instances of such problems with individual grantees. Table IV.1 includes information on each of the 17 OIG reports we identified. The OIGS used different reporting styles—some issued single reports to cover audits of multiple grants and some issued a single program—Commerce's TIIAP. However, OIG officials stated, in testimony to the Congress in May 1999, that none of the TIIAP studies identified major or systemic problems with grant recipients.

Just two of the remaining seven reports we identified—an Education Star Schools project and a Commerce PTFP project—reported significant questioned costs or unapproved grantee spending. The Star Schools report found significantly deficient management practices, including \$1.7 million of unsupported expenditures—such as nearly \$700,000 in personnel and fringe benefits for which there were no personnel activity records. Education's activities to eliminate the reported problems include efforts to prosecute the grantee organization criminally and to debar it from further federal funding. The PTFP report found that project officials had misused grant funds by paying for project operating expenses rather than equipment for colleges, as intended. Commerce pursued prosecution of the grantee and program officials report they are monitoring grant applications to preclude the grantee from obtaining further federal funding. Table IV.1 presents, for each of the 17 reports, more detailed information on findings, recommendations, and agency efforts to eliminate identified problems.

Program, reporting organization, and report		
date	Objective of study	Findings
Programs that target techn	ology	
Department of Education	1	
Star Schools Education OIG September 1997	To determine whether the grantee complied with the terms and conditions of its grant	The grantee was not in compliance with grant requirements and its management of the project was seriously deficient. The grantee failed to establish an adequate financial management system, demonstrate fiscal responsibility, and provide sufficient services to the four partner cities through which the grant was administered. Auditors reviewed \$2.8 million of the total \$4.5 million awarded and found more than \$316,000 used for unallowable purposes, including \$5,200 in overdrafts and returned check charges; \$1.7 million in unsupported costs such as \$693,440 in personne and fringe benefits; and about \$344,000 in inadequately supported costs. Additionally, the grantee did not provide the required financial and performance reports, including documentation supporting its 25 percent matching expenditures, and did not obtain an independent audit.
Department of Commerc	e	
PTFP Commerce OIG March 1999	Audit of the program's fiscal year 1997 procedures and practices for soliciting, reviewing, and selecting applications for financial assistance; part of a Commerce-wide review of discretionary financial assistance programs initiated at the request of the Chairman of the Senate Commerce, Science, and Transportation Committee	The program criteria, procedures, and practices for soliciting, reviewing, and selecting awards generally complied with statutory, departmental, and National Telecommunications and Information Administration (NTIA) requirements and appeared designed to result in merit-based awards. However, for fiscal year 1997, program staff deviated from requirements by adjusting application evaluation scores. Additionally, the selection official added three applications to the program director's list of recommended grantees without documenting the reasons for the specific selections.
PTFP Commerce OIG, Investigations Division Memorandum of Investigative Findings February 1999	To determine if the grantee had misused grant funds awarded by NTIA	The grantee did not use all the \$458,700 in grant funds for the intended purpose of purchasing and installing telecommunications equipment at several colleges. Instead, the grantee used the grant funds for daily operating expenses and never fully paid the vendors that supplied \$300,000 in equipment and installation.

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Recommendations	Resolution
Education should initiate action to debar the grantee and its principal employees from further participation in federal programs. Education should require the grantee to make the appropriate refund for any funds received for which proper matching cannot be established, refund \$317,000 identified as used for unallowable ourposes, provide proper documentation to support the costs dentified as unsupported and inadequately supported, and obtain the required independent audit.	In February 1998, Education issued a Program Determination Letter to the grantee sustaining all OIG findings and seeking recovery of \$1.6 million. The organization that comprises the grantee filed for bankruptcy in March 1996. In June 1998, Education filed a claim for \$1.6 million with the U.S. Bankruptcy Court, but payment is not expected.  The OIG Investigations Office conducted an investigation and presented the case to criminally prosecute the grantee organization and related individuals, but in November 1998 an Assistant U.S. Attorney declined prosecution.  According to an Education official, the Office of the General Counsel is planning to send a letter of debarment to the grantee.  The OIG 1999-2000 Work Plan includes a proposal for an evaluation of the process used by various program offices to monitor grantees.
The Assistant Secretary should direct the PTFP staff to ensure that ndependent reviewers' scores are not adjusted by program staff during the review process and require adequate documentation of the basis for making awards that deviate from the program director's recommendations.	NTIA concurred with the finding and recommendations and stated that it has implemented the recommendations, starting with the fiscal year 1998 grant competition.
None	Commerce officials met with the U.S. Attorney's Office to discuss both criminal and civil prosecution but the case was declined. According to an official, the program monitors grant applications tensure that the same organization or any of its key officials do not obtain further grant funds. The agency received a settlement of about \$3,000 after the grantee declared bankruptcy.

Program, reporting organization, and report		
date	Objective of study	Findings
TIIAP Commerce OIG March 1999	Audit of program's fiscal year 1997 procedures and practices for soliciting, reviewing, and selecting applications for financial assistance; part of a departmentwide review of discretionary financial assistance programs initiated at the request of the Chairman of the Senate Commerce, Science, and Transportation Committee	Program procedures and practices for soliciting, reviewing, and selecting awards generally complied with statutory, departmental, and NTIA requirements and appeared designed to result in merit-based awards. However, the selection official added nine and deleted seven applications from the program director's list of recommended grantees and did not provide written documentation of the reasons for the deleted applications.
TIIAP Commerce OIG September 1998	To determine whether (1) costs incurred by the grantee were allowable, and (2) the grantee complied with OMB circulars, grant terms and conditions, NTIA guidelines, and other applicable laws and regulations	Auditors questioned \$298,203 in project costs including \$273,107 in contractual costs, \$22,748 in indirect costs, \$1,495 in equipment costs, and \$853 in travel costs.
TIIAP  Commerce OIG  November 1997	To determine whether the grantee had properly administered the grant—specifically, (1) had made progress in meeting objectives; (2) had claimed costs which were allowable, allocable, and reasonable; and (3) had complied with the financial terms and conditions of the award and applicable laws and regulations	The grantee generally met the goals of the grant and performed many of the required tasks. However, without NTIA approval, it did not complete two minor tasks: (1) the grantee discontinued use of an information storage and retrieval tool proposed in the grant, and (2) the grantee did not establish the cooperative agreements with local governments proposed in the grant agreement. Additionally, it incurred \$138,155 in questioned costs.
TIIAP Commerce OIG September 1997	To perform a financial compliance review to determine (1) the allowability of costs incurred by the grantee, (2) whether the grantee had complied with applicable guidance and the grant terms, and (3) whether the project was meeting its intended goals	The grantee's procurement system did not comply with federal standards. The grantee failed to follow and implement required procedures and improperly incurred and charged \$227,564 to the grant.

Recommendations	Resolution
The Assistant Secretary should ensure that the basis for making awards that deviate from the program director's recommendations are adequately documented.	NTIA concurred with the finding and recommendation and stated that it has implemented the recommendation, starting with the fiscal year 1998 grant competition.
Commerce Director of the Office of Executive Assistance Management (OEAM) should disallow \$298,203 in questioned costs and recover the resulting \$106,107 in excessive grant disbursements.	According to a Commerce official, Commerce and the OIG have not yet agreed on a final resolution of the audit.
The OEAM Director should assess the effect of the two grant tasks that were not implemented and either issue a grant modification eliminating the two tasks or require the grantee to complete the tasks. Also, the OEAM Director should recover \$138,155 in questioned costs and disallow \$64,864 in excess grant disbursements as well as require the grantee to use appropriate accounting cost categories.	After further review by NTIA and the Commerce Grants Office, Commerce reinstated all costs associated with the findings as part of the grant.
The OEAM Director should require the grantee to implement and follow procurement procedures that meet federal standards for all contracts involving federal funds.	After further review by NTIA and the Commerce Grants Office, Commerce reinstated all questioned costs as part of the grant. Commerce will require a written certification from the grantee that all future contract modifications will be formalized with the appropriate paperwork in accordance with federal procurement standards.
	(continued)
	(commusa)

Program, reporting organization, and report date	Objective of study	Findings
TIIAP Commerce OIG August 1997	To determine whether the grantee had (1) properly administered the grant—specifically, had made progress in meeting its goals; (2) complied with the terms and conditions of the grant; and (3) recorded costs for the grant in accordance with OMB guidance	The grantee did not achieve two key goals—it fell short of its goal to attract the number of proposed subscribers and it established only two branch offices, rather than five as stated in the proposal. Additionally, the grantee did not have all nonfederal matching funds on hand when federal funds were released, did not provide them at the same rate government funds were expended, and could not adequately support \$266,306 of claimed matching funds. Finally, the grantee incurred questioned project costs of \$297,329.
TIIAP  Commerce OIG  August 1997	To perform a financial compliance review of the award; specifically, to determine (1) the allowability of costs incurred by the grantee, and (2) whether the grantee has complied with the applicable OMB circulars, NTIA guidelines, and the grant terms and conditions; additionally, to follow up on a complaint alleging fraud and misuse of federal funds by an organization connected with the award	\$32,943 in project costs had been improperly claimed including \$27,843 of in-kind contributions and \$5,100 in inadequately supported costs. The federal share of the questioned costs was \$24,346. The alleged misuse of funds was unsubstantiated.
TIIAP Commerce OIG February1997	To determine whether the grantee complied with the terms and conditions of the grant agreement, OMB cost principles, and administrative requirements	The grantee improperly valued about \$1.5 million in matching costs. The costs include improperly valued and inadequately supported third-party in-kind contributions, including computer equipment and other items.
TIIAP Commerce OIG September 1996	To determine the grantee's compliance with the conditions of the grant agreement and other requirements and to evaluate the project's progress and ability to meet its objectives	The grantee's records were inadequate to verify about \$639,000 of the \$831,000 in claimed matching costs. Additionally, the state is not inventorying equipment contributed to the project for its in-kind grant match in state accounting records.
TIIAP Commerce OIG September 1996	To determine the allowability of costs incurred by the grantee to determine whether it had complied with applicable guidance and grant terms and conditions, and to perform a program results review of the project	After more than a year and having drawn down more than half the grant funds, the grantee did not have the computer software program needed to operate the project. The grantee cannot account for or support \$407,000 of its in-kind contribution claims for the grant award.

#### Recommendations Resolution

The grants officer should evaluate the feasibility of requiring the grantee to complete all grant goals, require the grantee to submit supporting documentation for all matching share contributions, and disallow \$297,329 in questioned costs. Additionally, the grants officer should recover \$94,336 in excess disbursements resulting from questioned costs and recover the appropriate portion of any disallowed matching share contributions.

Commerce disallowed \$77,496 in questioned costs. These costs will be removed from the final project costs and the grantee's accounting records will be reconciled. According to a Commerce official, the grantee is in the process of closing the project and Commerce's Grants Office is waiting for final financial reports to determine if funds need to be recovered.

For future grants to grantee, OEAM should include in the agreement a requirement that support documentation for all claimed in-kind contributions be provided to the grants officer with each request for reimbursement. OEAM should also disallow \$32,943 in questioned costs and recover \$24,346 in excess grant disbursements.

Commerce upheld \$22,553 in disallowed costs and, according to a Commerce official, the organization's financial records were adjusted at the closeout of the project to remove the disallowed costs. In any future grants to the organization, Commerce will require support documentation for all claimed in-kind contributions.

NTIA should (1) disallow about \$1.5 million in improperly claimed in-kind contributions, (2) recover almost \$195,000 in excess grant disbursements, and (3) require the grantee to develop a verifiable basis to value the use of the in-kind contributions.

The grantee generally agreed with the draft audit findings and resolved some issues, as reflected in the final report. According to a program official, after further review of information submitted by the grantee in response to the final audit report, the OIG rescinded its recommendation and all costs were reinstated as part of the grant.

Commerce should suspend payments or reimbursements to the grantee until the state auditor certifies that the state can verify the value of in-kind contributions and that the state has inventoried the equipment contributed to the project for its in-kind match. The department should also disallow about \$639,000 in questioned costs and recover about \$74,000 in resulting excess grant disbursements.

After further review by NTIA and the Commerce Grants Office, \$591,121 of the questioned costs were reinstated. According to a Commerce official, the grantee had excess funds to draw from the grant and the remaining \$47,414 in disallowed costs were not included as part of the final closeout of the project.

NTIA should (1) decide within 30 days whether the project can be salvaged at no additional cost to the government, (2) continue the suspension of payments or reimbursement to the grantee until claimed in-kind contributions are adequately supported, (3) amend costs, and the grantee is current with scheduled payments. the grant's special terms and conditions to include requirements that will protect the government's interest, and (4) disallow \$471,818 in questioned costs and recover \$165,973 in excess grant disbursements.

According to a Commerce official, the project was suspended and subsequently allowed to expire. Commerce established a payment plan for the grantee to return funds associated with the disallowed

Program, reporting organization, and report date	Objective of study	Findings
TIIAP  Commerce OIG  October 1995	To perform an interim cost audit and to determine whether the grantee complied with applicable OMB circulars, NTIA guidelines, and the grant agreement's terms and conditions	The grantee improperly spent \$41,000 to upgrade its own computer system, which was not within the project's approved budget, and violated several federal procurement standards in awarding a \$50,000 sole-source contract.
Department of Agricultur	<u>re</u>	
Distance Learning and Telemedicine Grants Agriculture OIG March 1999	Study of four program grant projects evaluating the effectiveness of the programs, eligibility of the grantees, proper uses of funds, and adequacy of oversight activities	Grantees were eligible, funds were used properly, and the matching requirements were met. The program appears successful in funding projects as intended by legislation. However, two grantees did not disburse funds to vendors in a timely manner, resulting in increased interest costs totaling about \$17,000. Additionally, the four projects had not filed all required financial status and performance activity reports. Finally, equipment was not properly accounted for and grantees were not aware of federal property management standards for equipment purchased with grant funds.
Programs that do not targe	t technology	
Department of Education	1	
Bilingual Education Capacity and Demonstration Grants Education OIG June 1997	To determine how officials ensure that bilingual program objectives are being met; to determine if the students' native languages were being used excessively in the projects and whether controls over language use appear adequate	Of the seven grants reviewed, none had been reviewed by the Office of Bilingual Education and Minority Language Affairs (OBEMLA) or the state education agency (SEA), and three of the seven were not being implemented appropriately. Because of the lack of monitoring, the inappropriate implementation continued undetected. On the other hand, students' native languages were not being used excessively in the projects and controls over language use appear adequate.
Title I Grants to Local Education Agencies and Perkins Act Vocational Education Basic Grants to States Education OIG June 1998	To determine what percentage of Title I, Part A and Secondary School Vocational Education program dollars were spent on school-level activities, and to identify the types of expenditures for these two programs at the LEA and school levels; additionally, to determine whether the SEA had complied with the established caps for using federal dollars to cover administration costs	In the 36 LEAs visited (in 6 states), an average of 92 percent of the dollars for the two programs reached the schools during the 1996-97 school year. Types of expenditures were categorized as salaries and benefits (Title I, 82%; Vocational Education, 52%); materials and equipment (Title I, 9%; Vocational Education, 39%); professional development (Title I, 2%; Vocational Education, 5%); support services (Title I, 5%; Vocational Education, 3%), and indirect costs (Title I, 2%; Vocational Education, 1%).  All six SEAs complied with the established caps on administration expenses. Two LEAs used a significantly larger amount of Vocational Education dollars to cover administration costs than the average of 3 percent.

# Recommendations Resolution NTIA should reject the grantee's request to expand the project's After further review by NTIA and the Commerce Grants Office, budget and include upgrading its own computer system, and Commerce reinstated all questioned costs as part of the grant. The should withdraw the agency's approval of the sole-source contract grantee was cautioned that future sole-source contracting must be and disallow all costs charged to the project under that contract. clearly justified and documented. Rural Utilities Service should (1) monitor grantees' disbursement of Agriculture officials agreed to develop procedures to monitor grant funds to assure timely disbursements, (2) develop policies grantees' disbursement of grant funds, ensure grantees comply and procedures to ensure grantees comply with reporting and with reporting requirements, and ensure grantees account for oversight requirements, and (3) develop policies and procedures equipment purchased grant funds in accordance with federal to ensure that grantees comply with federal property management standards. The Director of OBEMLA should work with appropriate officials to OBEMLA did not agree with the recommendation to clarify the (1) revise its legislation to clarify the need and requirement for legislation regarding federal monitoring but indicated that it better federal monitoring reviews, and (2) develop and implement a serves grantees through technical assistance conferences monitoring program to provide for thorough on-site grant reviews because of the numbers that can be reached compared with and documentation of the results. on-site reviews of grants. OBEMLA did concur with the recommendation to develop and implement a monitoring program and has taken steps in that direction. None. The OIG issued a separate Action Memorandum to Education regarding the two LEAs that used more than 3 percent of their Vocational Education dollars on administration costs. The memorandum recommended that the Office of Adult and Vocational Education review the regulations and guidance associated with administration costs and revise them as necessary, as well as review the 1996 to 1997 expenditures of the two grantees. (continued)

Program, reporting organization, and report date	Objective of study	Findings
Title I Grants to Local Education Agencies (formerly Chapter 1) Education OIG February 1996	To determine (1) the extent of monitoring performed of Chapter 1 (Title I) by a state department of education and a city board of education, (2) the availability of data supporting school and student performance to permit identification and recognition of exemplary programs, and (3) whether systems were in place to permit the replication of programs in lower-performing schools	The Chapter 1 program is closely monitored by both the state department and the city board, has placed heavy emphasis on identifying and rewarding exemplary programs, and strongly encourages less successful programs to emulate them. However, the current recognition program, which is based solely on annual changes in standardized test scores, does not consider other performance factors and may be rewarding schools whose students are still failing to reach grade level proficiency or to meet state standards, despite improvements in test scores.

#### Recommendations Resolution

The state department should review the city board of education's Chapter 1 reward and recognition systems to ensure that these systems better reflect the actual success of the city's schools in enabling students to reach grade level proficiency and/or to meet state-developed standards.

According to the report, both the city board of education and the state education department agreed with the finding and stated in their response that action has been taken to improve the Title I recognition process. The recognition program is no longer based solely on annual changes in standardized test scores.

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# Comments From the Department of Agriculture



#### United States Department of Agriculture Rural Development

Rural Business-Cooperative Service • Rural Housing Service • Rural Utilities Service Washington, DC 20250

July 20, 1999

Ms. Marnie S. Shaul, Associate Director Education, Work Force, and Income Security Issues General Accounting Office 441 G Street, NW, Room 5928 Washington, D.C. 20548

Dear Ms. Shaul:

Thank you for the opportunity to provide comments on the General Accounting Office's (GAO) draft report HEHS-99-133, Telecommunications Technology: Programs that Could Fund Schools and Libraries. Included in GAO's report is data concerning the Rural Utilities Service's (RUS) Distance Learning and Telemedicine (DLT) program. To supplement the data contained in the report, we are providing the following additional information concerning the resources attributable to the program. The RUS DLT Program is a competitive program administered on a national level utilizing approximately 12 full-time equivalent positions. With limited grant funding available, we score and rank applications based upon criteria that measure the rurality of the project, the applicants' needs and economic resources, and the project's innovativeness and cost effectiveness. Utilizing advanced telecommunications services and sophisticated end-user equipment to meet the educational and health care needs of rural America, the DLT program is very "technology-oriented." The high level of technological assessment necessary to evaluate each project is, therefore, very labor and time intensive.

In addition, RUS funds only sustainable projects delivering "real" benefits to local residents, as opposed to demonstration or short-term operation-type projects. Projects sustainable for long periods are generally more complex and require extensive evaluation. The limited amount of grant funding and the competitive nature of the program also lend to a higher labor-to-funds availability ratio. Since the program's inception in 1993, demand has been enormous, exceeding available grant funds by over 500 percent. As you are aware, in a competitive program, all eligible applications must be processed, reviewed, scored, and ranked even though many of those projects will never receive funding.

Rural Development is an Equal Opportunity Lender Complaints of discrimination should be sent to: Secretary of Agriculture, Washington, DC 20250 Appendix V Comments From the Department of Agriculture

Ms. Marnie S. Shaul 2 Once again, we appreciate the consideration of our comments. If you have any questions, please contact me at (202) 720-9554. Sincerely, ROBERTA D. PURCELL Assistant Administrator Telecommunications Program

# Comments From the Department of Commerce



Ms. Marnie S. Shaul Associate Director Education, Workforce, and Income Security Issues United States General Accounting Office Washington, DC 20548

Dear Ms. Shaul:

Thank you for the opportunity to comment on behalf of the Department of Commerce on your draft report, "Telecommunications Technology: Programs That Could Fund Schools and Libraries." I appreciate the diligence and professionalism of your staff in working with Commerce Department staff to understand the Department's programs that are discussed in the report.

The Department has several concerns related to the report's treatment of two programs administered by the National Telecommunications and Information Administration -- the Telecommunications and Information Infrastructure Assistance Program and the Public Telecommunications Facilities Program. These concerns include both matters of fact and matters of presentation that could lead to misunderstandings about both programs.

Specifically, our concerns are related to the report's presentation of program administrative costs in Appendix I; the discussion of the potential for duplication in Appendix II; and the presentation of information available on potential problems of fraud, waste, and abuse in Appendix IV. Each is discussed more fully in the enclosed attachment. See also the proposed revisions to pages 53, 55, and 56 of the report.

Thank you again for the opportunity to review the draft and to provide comments. If you have any questions about our comments, please contact Sarah Maloney, Audit Liaison for the National Telecommunications and Information Administration, at (202) 482-1835.

Sincerely,

William M. Daley

Enclosure

Appendix VI Comments From the Department of Commerce

# COMMERCE DEPARTMENT'S CONCERNS REGARDING GAO DRAFT REPORT "TELECOMMUNICATIONS TECHNOLOGY, Programs That Could Funds Schools and Libraries"

#### **Administrative Costs**

Table I.1 presents the estimated percentage of total program costs spent on administrative costs. In our opinion, the table invites unfair comparison of costs across programs. Any comparison of administrative costs across programs would not be meaningful for the following reasons.

- (1) Program administrative costs are strongly dependent upon the nature of the program being administered. These variations are wholly appropriate and are unrelated to program efficiency. Demonstration programs by their nature need to allocate resources to the evaluation of funded projects and the dissemination of findings. Programs based on competitive peer review must be run differently than other programs and the administrative costs will accordingly be different. Both PTFP and TIIAP must include costs for the competitive peer review of grant applications, whereas programs that award grants on a formula basis do not incur such costs. Such investments are not required by formulaic or block grant programs at the federal level that simply aim to provide financial assistance. For example, some block grant programs allow States or localities to take a percentage of the federal award and allocate it to program oversight. In this case, administrative costs are shifted away from the federal government yet are presumably calculated as program funds.
- (2) The range of activities included under administrative costs varies from program to program. Programs vary in the types of activities they conduct. For example, significant differences exist even between the two Commerce Department programs discussed in the report. PTFP has a relatively smaller administrative allocation than TIIAP because PTFP's administrative costs do not include such activities as program evaluation, outreach and technical assistance workshops, a national conference, and dissemination of findings from funded projects. TIIAP's administrative costs include all such activities because of the specific nature of the program. The programs also vary in the number of applications they process and the manner in which awards are monitored.
- (3) The figures are self-reported by the agencies and, to our knowledge, have not been verified by the GAO. Furthermore, the methodologies used to separate program administrative costs from program funding and to allocate general administrative costs to specific programs vary from agency to agency. For example, both TIIAP and PTFP are given a specific appropriation from Congress for administrative costs. These costs include all direct costs, such as staff salaries and travel for program oversight activities, and all indirect costs, such as payment of rent, electricity, and agency and department overhead charges. Many programs do not include these expenses in their administrative costs. Other programs often administer programs out of a centralized administrative account that supports a broad range of programs and other agency activities.

Appendix VI Comments From the Department of Commerce

The Commerce Department respectfully requests that the final report include a discussion, in the executive summary and the text of Appendix I, that strongly states that it is not possible to make meaningful comparisons of administrative costs across programs due to the aforementioned reasons.

#### Potential for Duplication

This section includes one item that should be clarified. In describing the Telecommunications and Information Infrastructure Assistance Program on page 39 of Appendix II, the report states that "In 1998 a library and K-12 schools received slightly more than one-fourth of the 46 grants awarded." This statement is not accurate. Only one library and one K-12 school system received an award in 1998. The author may be referring to the number of awards that included at least one library or one K-12 school among the many project partners and supporters involved in a given award but were not the grant recipient. We request that you amend the report to note that only two of the 46 grants were awarded to schools or libraries.

#### Information Available on Potential Problems of Fraud, Waste, and Abuse

The Department's concerns with Appendix IV are based on the presentation of the reports from the various Offices of Inspector General (OIG) and the characterization of the findings. We have four issues that we request you address.

The report correctly notes that the Department's OIG has stated that none of the TIIAP studies identified major or systemic problems with grant recipients. However, the statement that ten of the 17 reports concern a single program creates the impression that there are an unusually high number of findings associated with the TIIAP program. The fact that ten of the 17 reports concern the TIIAP program is an artifact of the different reporting styles of the Office of Inspector General in different federal agencies. The Department of Commerce's OIG issues a single report for each grant it audits. According to the report, the Offices of Inspector General at other departments appear to issue single reports that cover audits of multiple grants. For example, Table IV.1 cites a single OIG report on Title I grants that covered visits to 36 local educational agencies. In all, the 17 reports cited cover two program-wide audits and 59 audits of individual grants.

Accordingly, the Department requests that the text of Appendix IV be modified to note that GAO reviewed reports that covered two program-wide audits and 59 audits of individual grants. Please also include a statement that there is no correlation between the number of audits conducted and any findings of fraud, waste, or abuse. In addition, please insert a footnote explaining the difference between the number of audits conducted and the number of reports reviewed.

2. Table IV.1 includes the heading "Efforts to Eliminate Problems." A reader could infer that each report cited in this section found problems that required elimination. Note that for five of the OIG reports concerning THAP, all costs were reinstated in the audit

Appendix VI Comments From the Department of Commerce

resolution. In these cases, there were no problems to eliminate. Please change the heading in this table to read "Resolution."

- 3. One report cited in Table IV.1 describes an audit that has not been resolved. As such, all findings are inconclusive and we do not believe that it is fair to the audited grant recipient to be included in the report.
- 4. The Department's OIG does not release the names of audited grant recipients in its reports to Congress. The Department requests that you respect this practice and only refer to the grant recipients in general terms.
- 5. Finally, we request the following changes to Appendix IV:
  - (a) On page 53, under "Recommendations" for the Depart of Commerce OIG's February 1999 review of Public Telecommunications Facilities Program grant recipient, add "None; however, see Department of Education OIG's September 1977 review of Star Schools grant recipient, which also addressed the investigation of this NTIA grant recipient, on page 52."
  - (b) On page 55, under the draft column title "Efforts to Eliminate Problems" for the August 1997 reviews of LatinoNet and Bridgeport Futures, Inc., respectively, replace "The questioned costs . . ." with "\$77,496 in questioned costs . . ." and replace "The Department unheld the disallowed costs . . ." with "The Department upheld \$22,553 in disallowed costs . . ."
  - (c) On page 56, under the draft column title "Efforts to Eliminate Problems" for the February 1997 review of the Public Library of Charlotte and Mecklenburg County, replace "... after further review by NTIA and the Department's Grants Office ..." with "... after a review of information submitted by the grantee in response to the final audit report ..."

# Comments From the Department of Education



#### UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE DEPUTY SECRETARY

June 24, 1999

#### MEMORANDUM

TO:

Marnie S. Shaul

THRU:

Phil Link

Executive Secretariat

FROM:

Linda Roberts Junda Koberts Office of Educational Technology

RE:

**GAO** Report

In reviewing the draft GAO Report: Telecommunications Technology - Programs That Could Fund Schools and Libraries, an error was found on page 44, last paragraph, last sentence under the heading The Office of Educational Technology Focuses on Using Technology in Schools. The sentence should read: In addition, the office generally has one or two detailees -- one from a school district or state department of education from around the country whose salary is paid by the Department of Education under the Intergovernmental Personnel Act (IPA), and one from another principal office within the Department of Education.

In addition, the Office of Planning and Evaluation Service has the following suggested clarifications:

On page 3 the discussion of "mission fragmentation" should be formulated in a way that also captures the broader program design issues. As stated in the statement of Marnie Shaul to Congress on Using Agency Performance Plans to Oversee Early Childhood Programs, "The outcome of using the Results Act in these ways might be consolidation that would reduce the number of multiple programs, but it might also be a streamlining of program delivery or improved coordination among existing programs. Where multiple programs remain, coordination and streamlining would be especially important. Multiple programs might be appropriate because a certain amount of redundancy in providing services and targeting recipients is understandable and can be beneficial if it occurs by design as part of a management strategy. Such a strategy might be chosen, for example, because it fosters competition, provides better

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Appendix VII Comments From the Department of Education

service delivery to customer groups or provides emergency backup."(GAO/T-HEH-99-93, p. 6).

- On page 19, Table I.3 indicates that the Technology Literacy Challenge Fund awards funds on a formula award basis. Actually, it is a two step allocation process. States receive funds on a formula bases, but then must make subgrants within the state on a competitive basis. This is also the case for Goals2000 (p. 20).
- On page 29 in the first bulleted text "Literacy Challenge Grants" should read "Literacy Challenge Fund grants".
- On page 29, in the second bulleted text, the description of the Star Schools program
  could be read to emphasize equipment acquisition. While the program does support
  procurement of equipment, it includes strong emphasis on development of
  instructional approaches, including content development and professional
  development, for use of distance learning in elementary and secondary education.
- On page 33-34, the notes on the Eisenhower program should note the math and science priority in this program.
- On page 47 "OSTP is helping Education learn how the NSF--which has been involved with research, including in education, for a long time--conducts its research projects according to an OSTP associate director" has overtones that interaction between the two agencies in this area is new and that NSF has not been willing to provide such information (which is not the case). It would be more accurate to note OSTP's facilitating or coordinating role in this area.

We appreciate the opportunity to review and comment on this GAO report.

# Comments From the National Endowment for the Humanities



Office of Strategic Planning 1100 Pennsylvania Avenue, NW Washington, DC 20506

June 30, 1999

Marnie S. Shaul Associate Director Education Workforce, and Income Security Issues U.S. General Accounting Office Washington, D.C. 20548

#### Dear Ms. Shaul:

Thank you for providing the National Endowment for the Humanities (NEH) with an opportunity to comment on NEH-related excerpts of a report GAO has prepared at the request of two House committees—the Committee on Education and the Workforce and the Committee on Commerce—on "federal programs that fund technology for schools or libraries." NEH has a number of observations to make about the study in general and about the report's excerpts pertaining to the Endowment's programs in particular.

First, we would like to stress that NEH programs do not provide support for schools and libraries to *acquire* information technology, per se. Rather, the Endowment's funds innovative projects employing new electronic information technologies, such as the World Wide Web and CD-ROMs, that make rich humanities *content* more accessible to the nation's schools and libraries, as well as to other humanities institutions and to the American public at large.

In our previous responses to GAO's requests for information about our programs related to this study, we have focused exclusively on the *teacher training* aspect of the study's mandate. It has been our understanding from the start that *education*, particularly elementary and secondary education, was the primary interest of the House committees requesting this survey. In this regard, while the Endowment does not support projects to train teachers in the use of computers, we do support projects and programs that help teachers access and use humanities materials in digital form. From 1995-1998, for example, NEH sponsored a special grant program, Teaching with Technology, that received over 700 applications and awarded 64 grants. This program contributed to the development of such now well-known interactive projects as "The Valley of the Shadow," a Website and CD-ROM that uses primary sources to document the life and times of two communities divided by the Civil War; the "Perseus Project," a Web-based project that makes available maps, texts, translations, photographs, and commentary of the ancient world; and "Oyez, Oyez, Oyez," a Supreme Court resource that provides opinions and background on major Constitutional cases.

Appendix VIII
Comments From the National Endowment
for the Humanities

More recently, in response to the clear need of elementary and high school teachers for high quality, educationally appropriate, and easily accessible materials on the Web, NEH created a meta-website for teachers and lifelong learners, called EDSITEment. This project, undertaken in partnership with MCI-WorldCom, the Council of Great City Schools, and the National Trust for the Humanities, seeks to ameliorate the problems of uneven quality and difficult access to the baffling tangle of educational websites. Making use of NEH's multi-tiered peer review process—using the advice of scholars, teachers, principals, superintendents, PTA members, and others—NEH has culled 49 sites from among the 66,000 educational sites on the Web. The sites were selected for their excellence in content and design and for their usefulness in the classroom. In addition, for teachers and lifelong learners hesitant to put their feet into alien waters, the site includes learning guides that tackle such issues as how to assess a site for accuracy and how to use a search engine. EDSITEment has been extraordinarily successful by many measures. The Endowment and its partners have recently renewed this project for two more years, during which time the list of high quality sites will be expanded, new lessons plans created, and outreach to teachers extended.

In 1998, the Endowment launched a special opportunity, Schools for a New Millennium, that is designed to strengthen humanities education in the United States by helping K-12 teachers learn to use today's rapidly evolving information technologies for more effective teaching and learning in the humanities. At the heart of the initiative is the Endowment's commitment to the proposition that real change can be effected by groups of teachers at a single school who are proficient in using digital resources with rich, high-quality humanities content. Next year we will make the first awards to implement a number of these innovative projects.

Finally, in regards to the content of GAO's draft report, we would like amend the information that is provided about the administrative costs of the two NEH education programs that are described in the report—namely, the *Education Development and Demonstration* and the *Seminars and Institutes* programs. Specifically, we request that the "1998 Estimated Program Administrative Costs" for these programs (see page 15 of the draft) be changed as follows: the amount for the *Education Development and Demonstration* program should be corrected to \$455,203, and the figure for the *Seminars and Institutes* program should be adjusted to \$417, 310. This action would also necessitate the adjustment of the numbers in the "Administrative Costs as a Percent of Total Program Costs" column (also on page 15) to 8.9 percent and 6.8 percent, respectively, for these programs. These amounts represent the FTE costs of each program plus the cost of convening panels of peer reviewers to evaluate grant applications. We feel that these amounts and proportions satisfactorily represent the costs of administering these programs.

A contextual comment about our administrative costs is perhaps in order here. NEH's primary function—grant making—is highly labor-intensive. Moreover, with the exception of our Federal/State Partnership awards to the 56 state humanities councils across the nation, none of our programs is formulaic. This means that the grant-making process accounts for a great part of our administrative budget. This process begins with the planning of programs and the development of guidelines. Applications submitted to the Endowment must then be acknowledged, read to insure that they meet the appropriate application criteria, reviewed by outside experts, and, with the advice of the National

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Council on the Humanities, ultimately acted upon by the Chairman. Successful applications become grants that must be processed and administered. NEH staff members also advise unsuccessful applicants concerning ways their applications might be revised and improved. In addition to a program staff expert in the humanities, these tasks require highly qualified advisers including reviewers, panelists, site visitors, and the 26 members of the National Council on the Humanities. The program staff and advisers are supplemented by support staff responsible for a wide variety of policy and administrative functions.

I would like to thank you once again for providing NEH with an opportunity to comment on this draft report. If any have any additional questions about this material, please do not hesitate to call me at 202-606-8428.

Sincerely

Larry Myers
Program Analyst

cc: Juan Mestas,

NEH Deputy Chairman

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